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(12) **United States Patent**
Coheley

(10) **Patent No.: US 9,280,959 B2**
(45) **Date of Patent: Mar. 8, 2016**

(54) **PRACTICE PAD FOR PERCUSSION INSTRUMENT**

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(72) Inventor: **David M. Coheley**, Powder Springs, GA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/506,168**

(22) Filed: **Oct. 3, 2014**

(65) **Prior Publication Data**

US 2015/0096428 A1 Apr. 9, 2015

Related U.S. Application Data

(60) Provisional application No. 61/887,070, filed on Oct. 4, 2013.

(51) **Int. Cl.**
G10D 13/02 (2006.01)

(52) **U.S. Cl.**
CPC ***G10D 13/029*** (2013.01)

(58) **Field of Classification Search**
CPC ... G10D 13/026; G10D 13/02; G10D 13/021; G10D 13/00; G10D 13/029; G10G 5/005; G10G 5/00
USPC ..... 84/411 R, 411 P, 421
See application file for complete search history.

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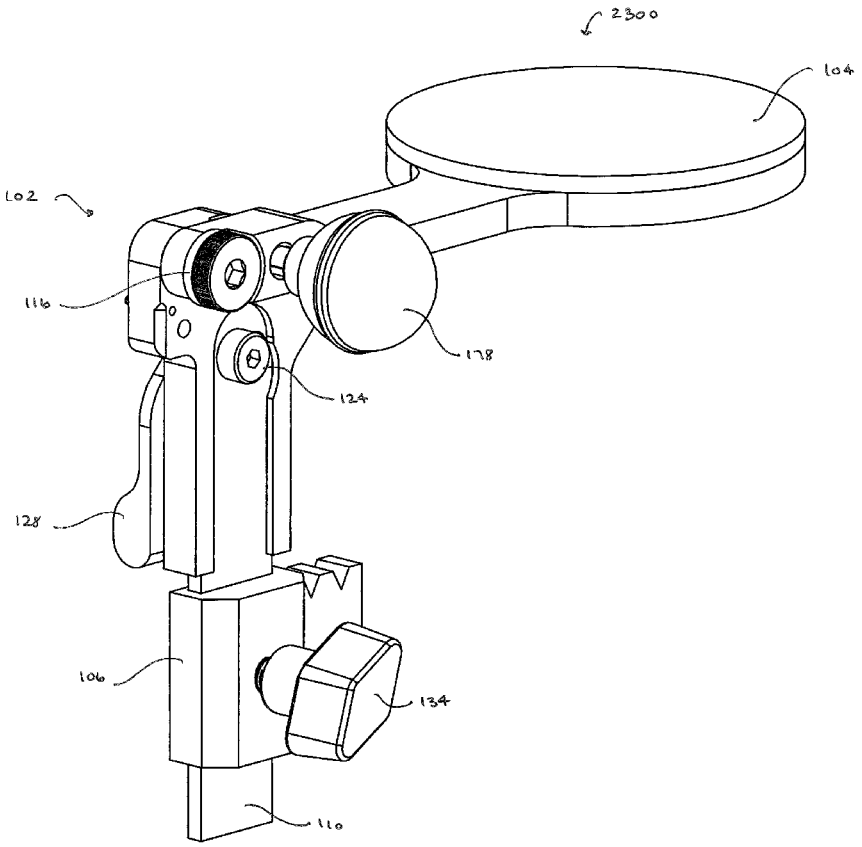
Primary Examiner — Kimberly Lockett
(74) *Attorney, Agent, or Firm* — Meunier Carlin & Curfman LLC

(57) **ABSTRACT**

The present invention is directed to an apparatus providing a removable playing surface to a percussion instrument. The apparatus includes a mount assembly for fixing the apparatus to the percussion instrument and a paddle providing a playing surface. The paddle can movable between a playing position over the head of the percussion instrument and in a non-playing position away from the head of the percussion instrument.

20 Claims, 39 Drawing Sheets



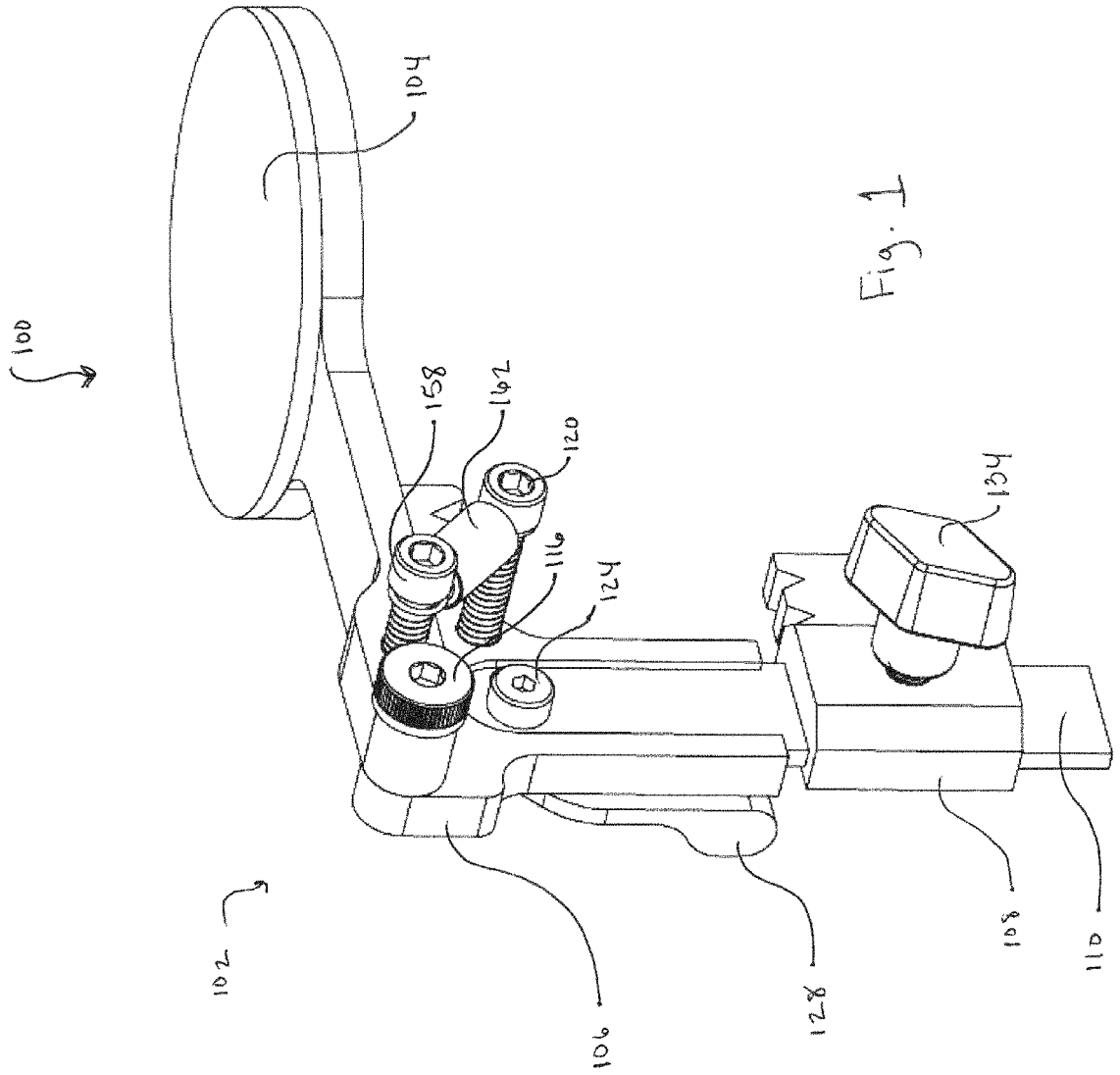


Fig. 1

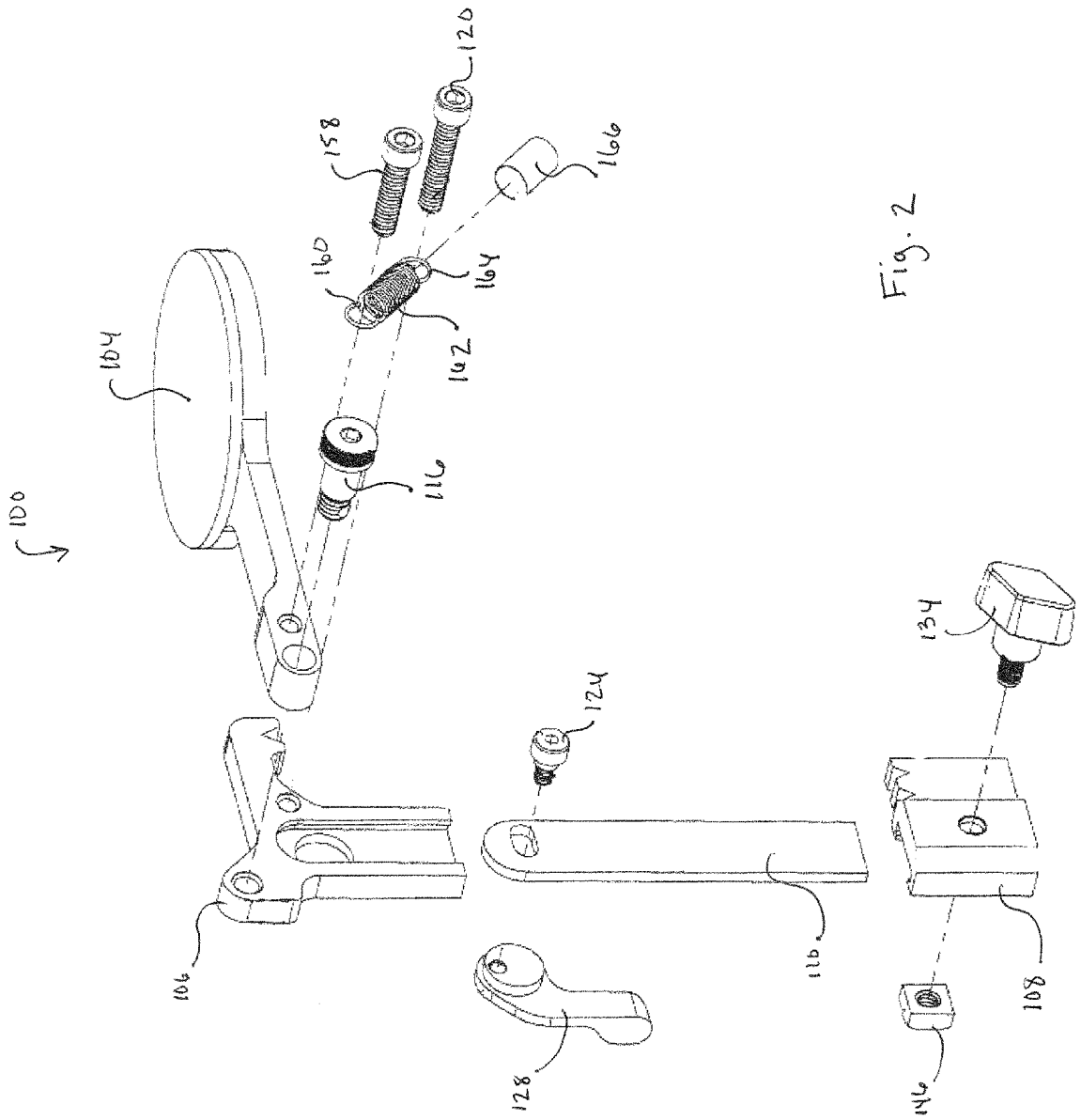


Fig. 2

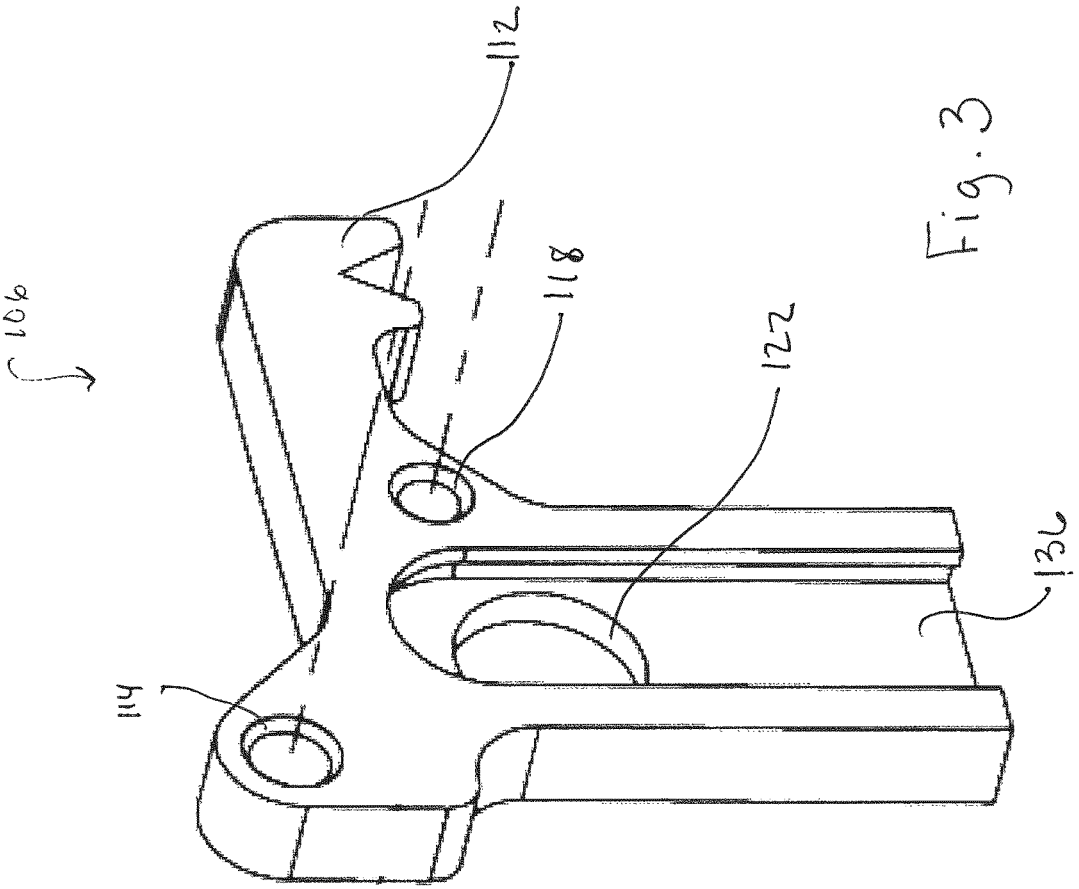


Fig. 3

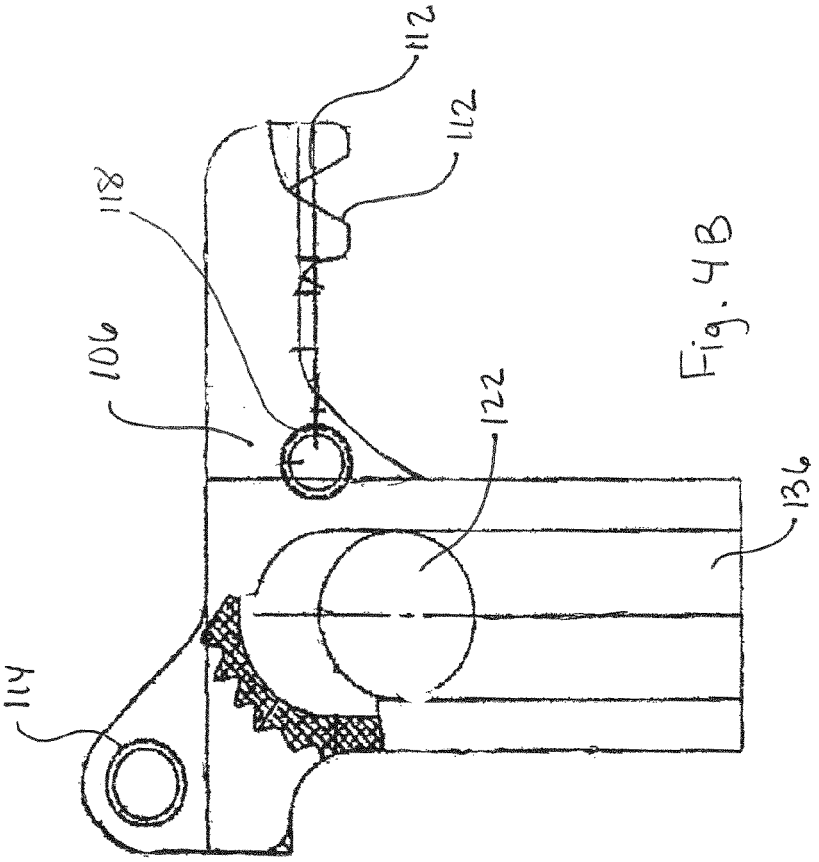


Fig. 4B

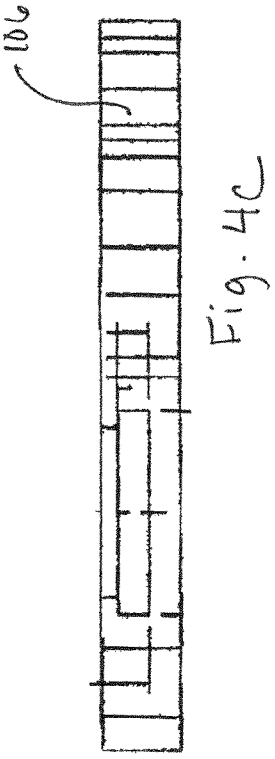


Fig. 4C

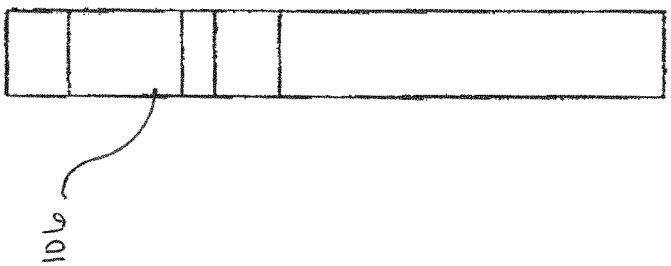


Fig. 4A

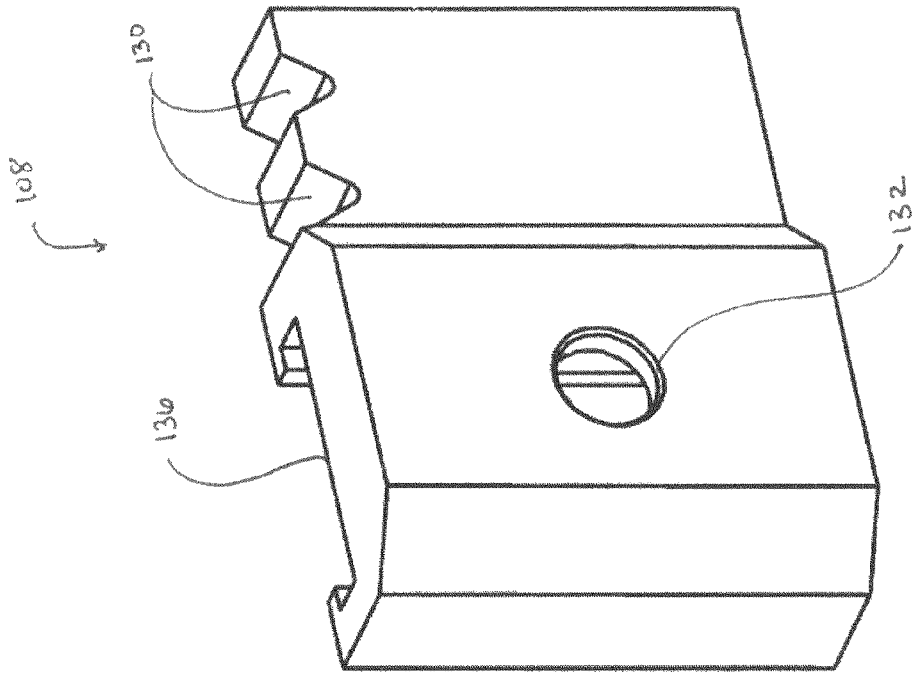
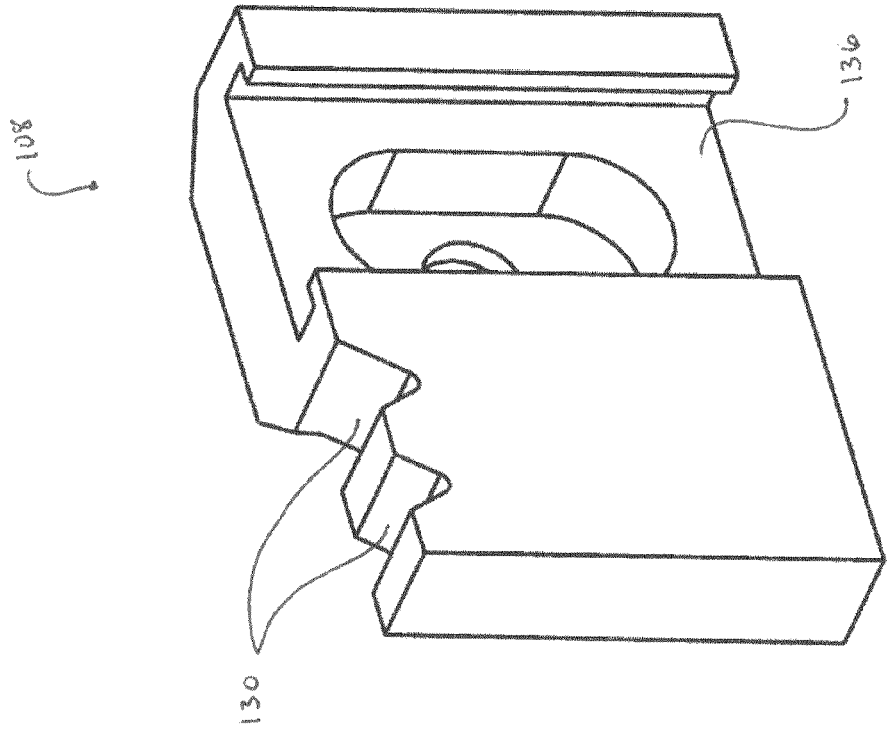


Fig. 5B



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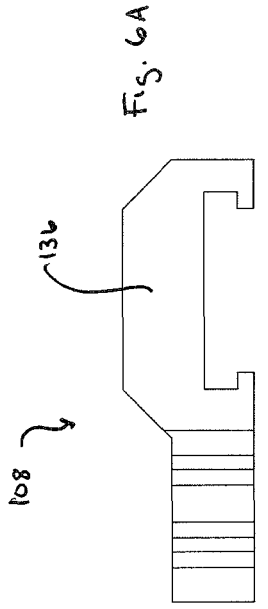
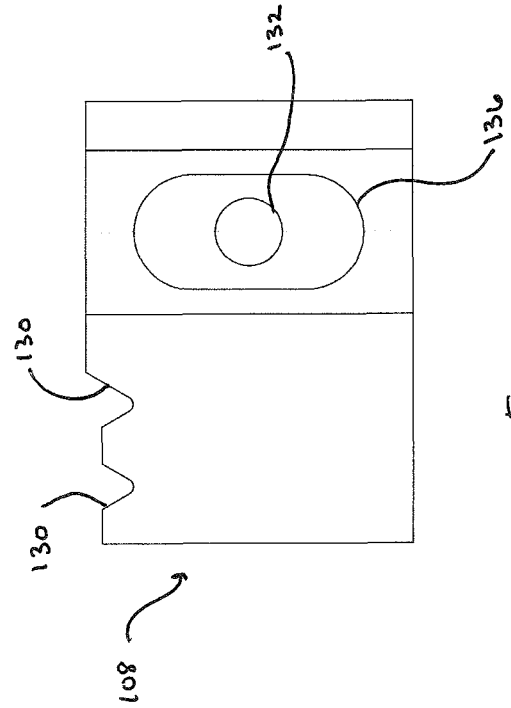


Fig. 6A



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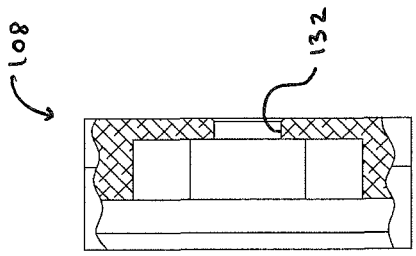
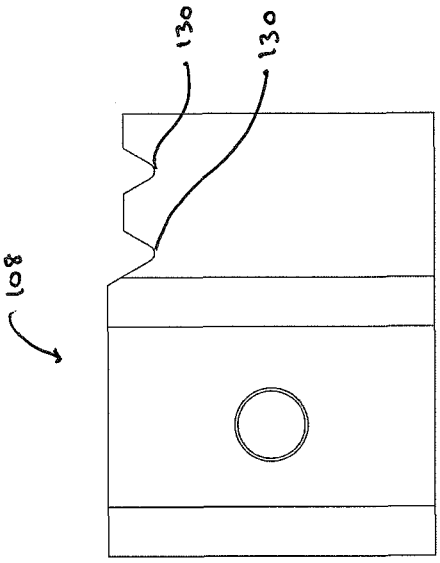


Fig. 6C



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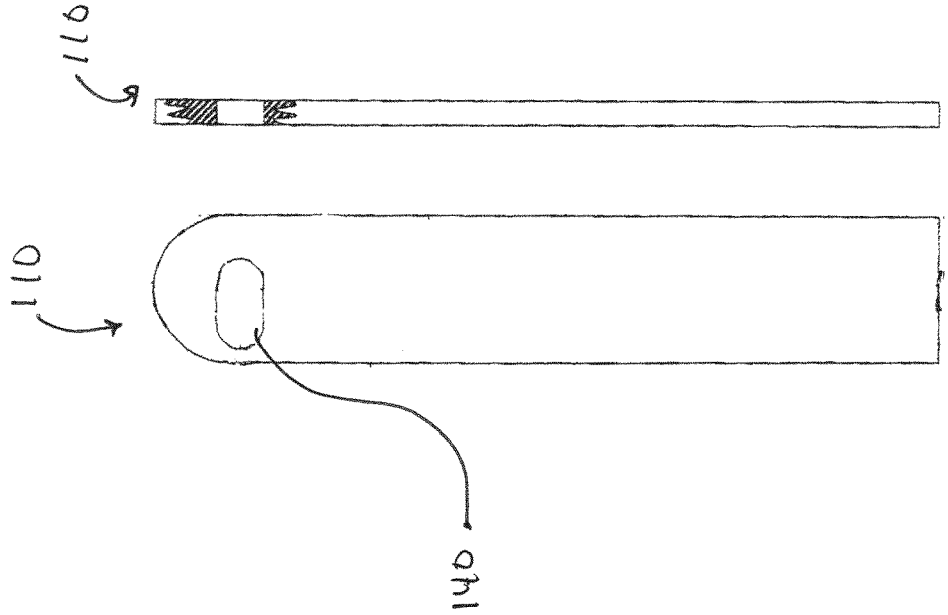
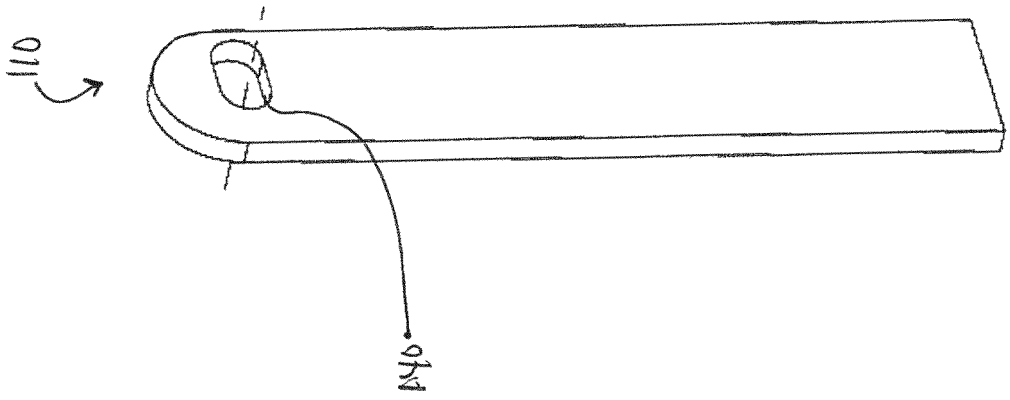


Fig. 7C

Fig. 7B



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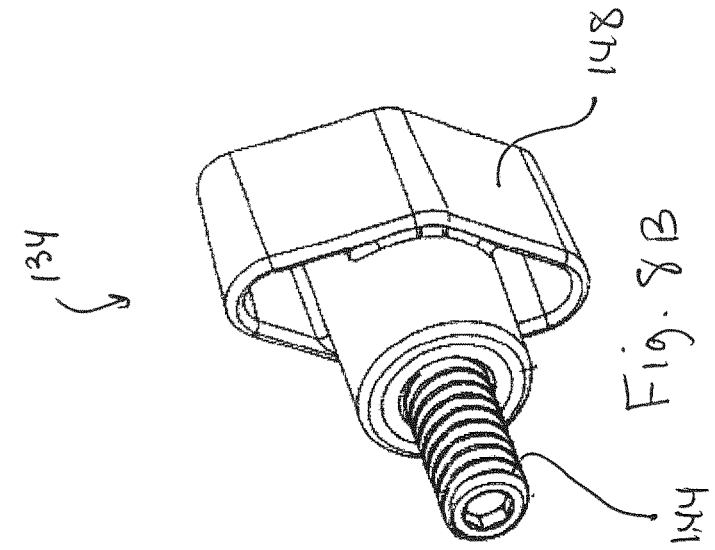
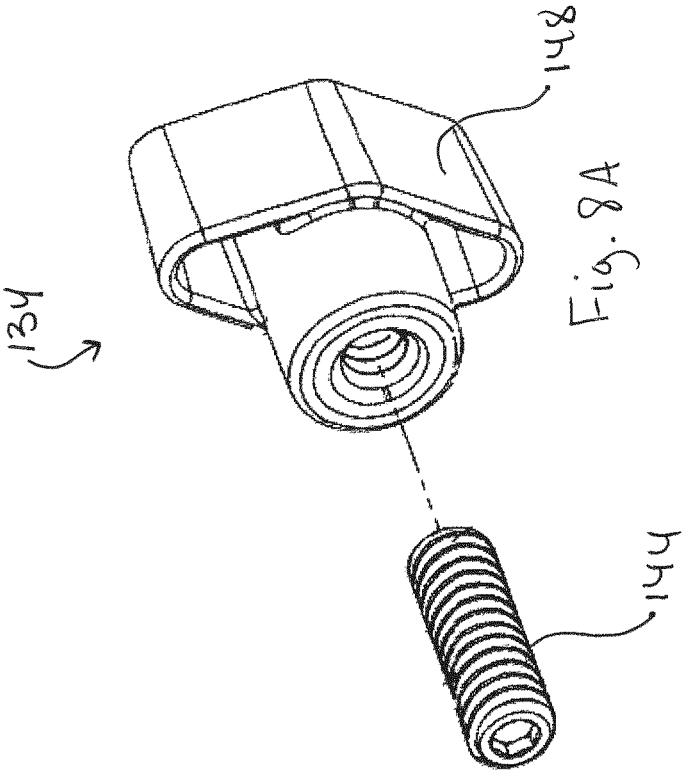


Fig. 8B



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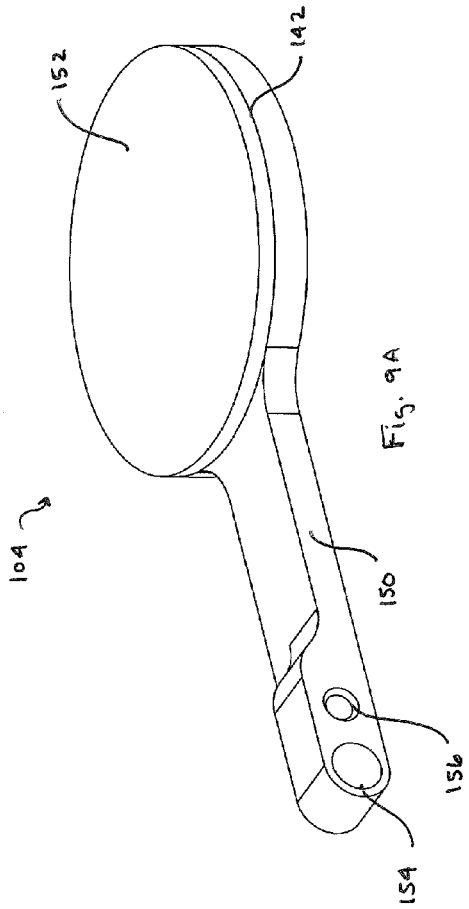

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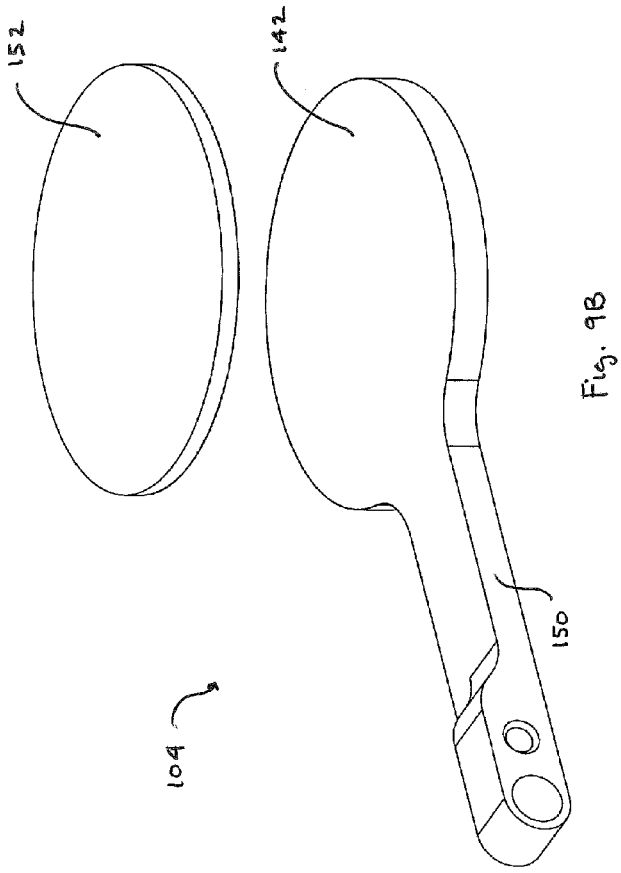

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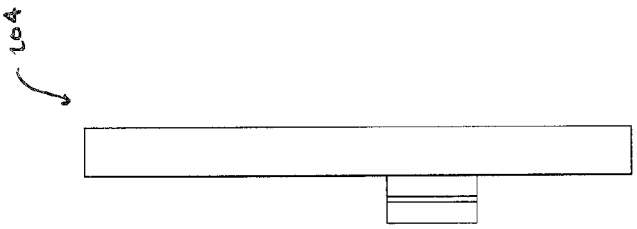

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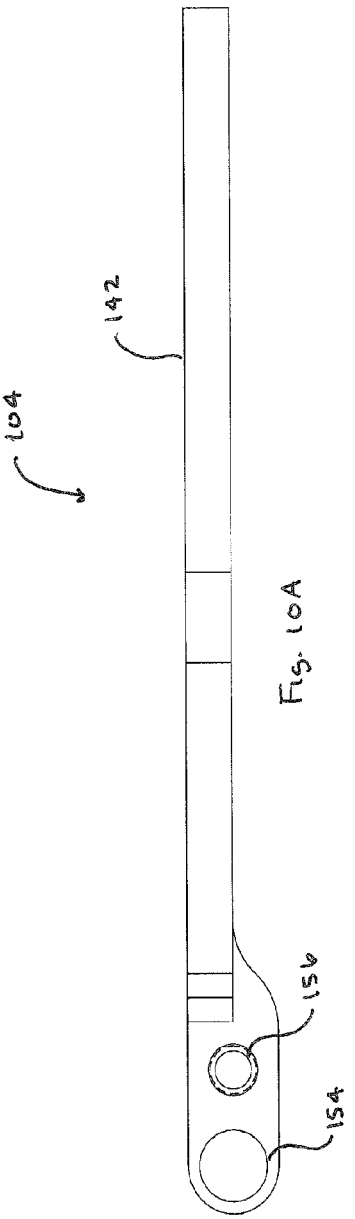

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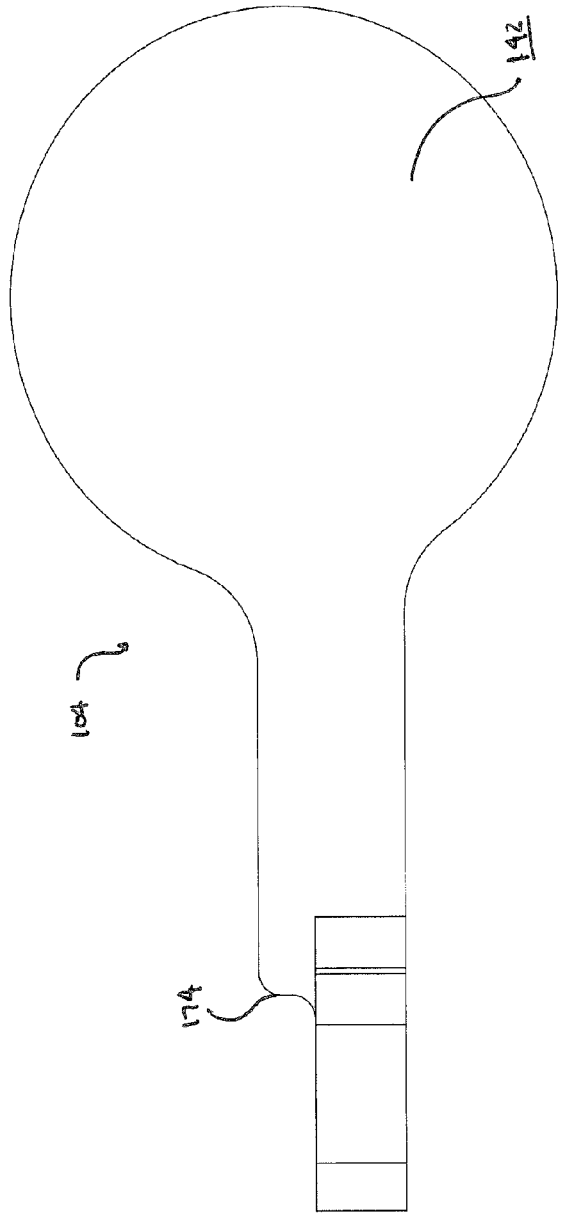

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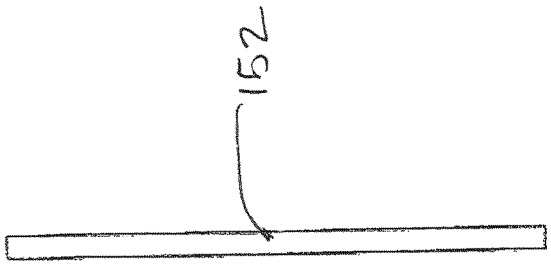
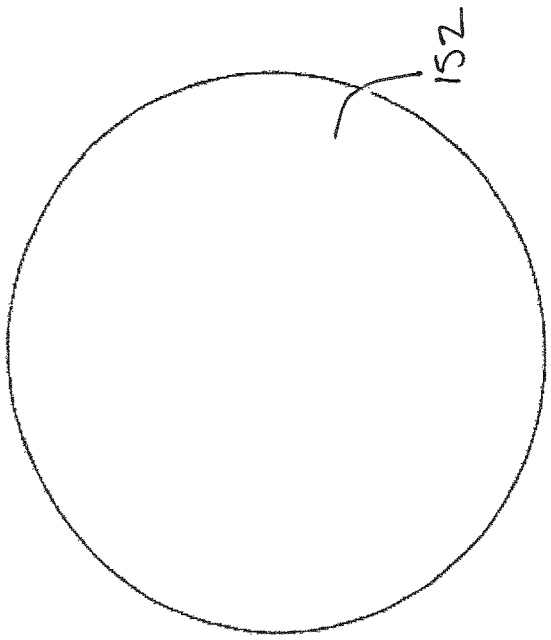


Fig. 11B



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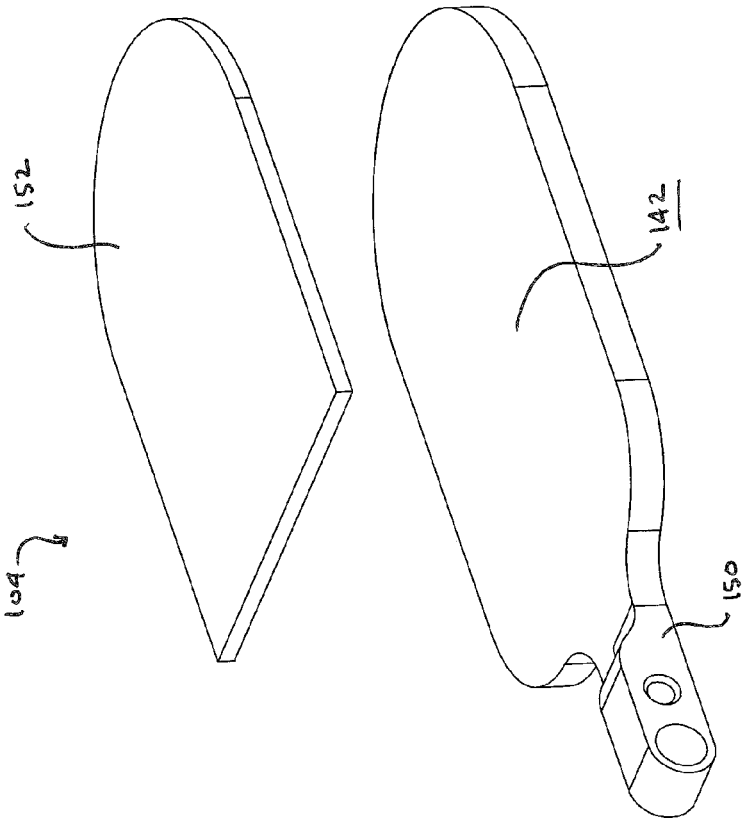
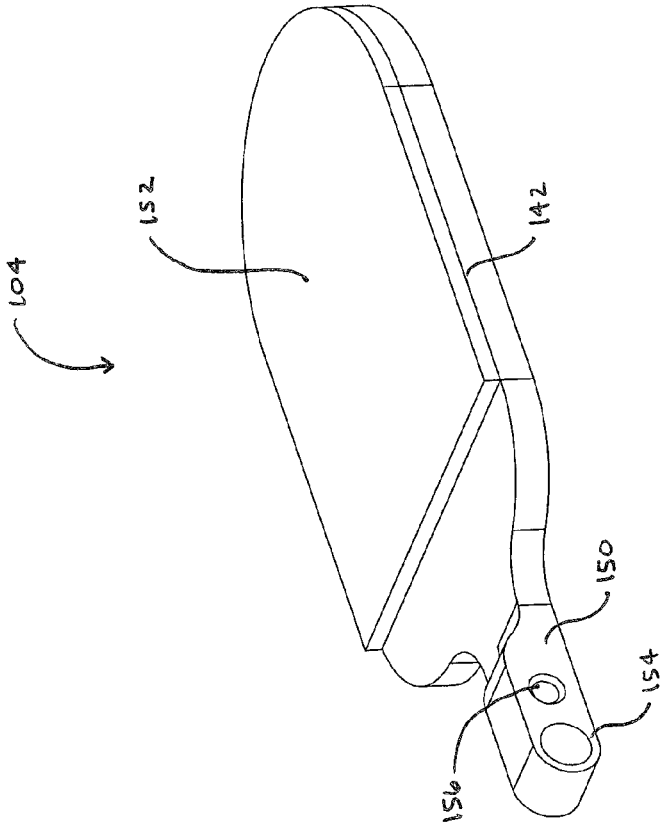


Fig. 12B



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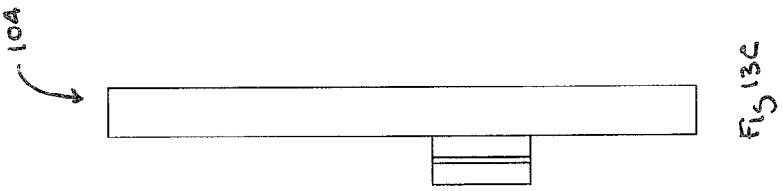

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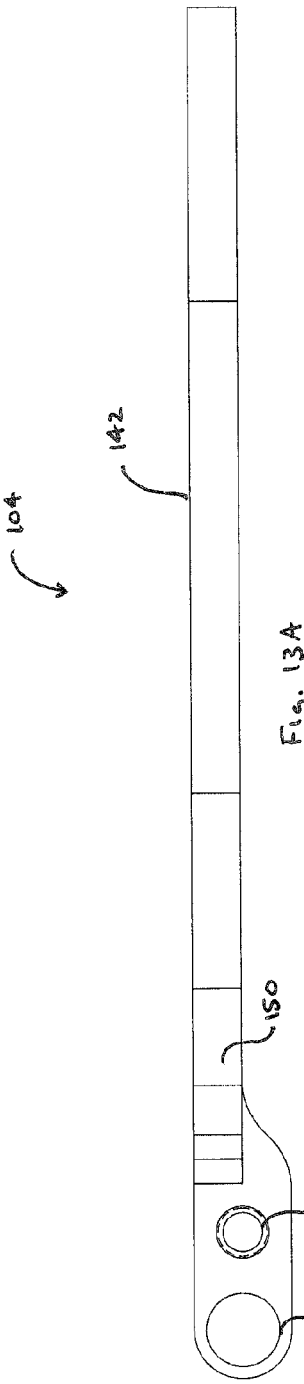

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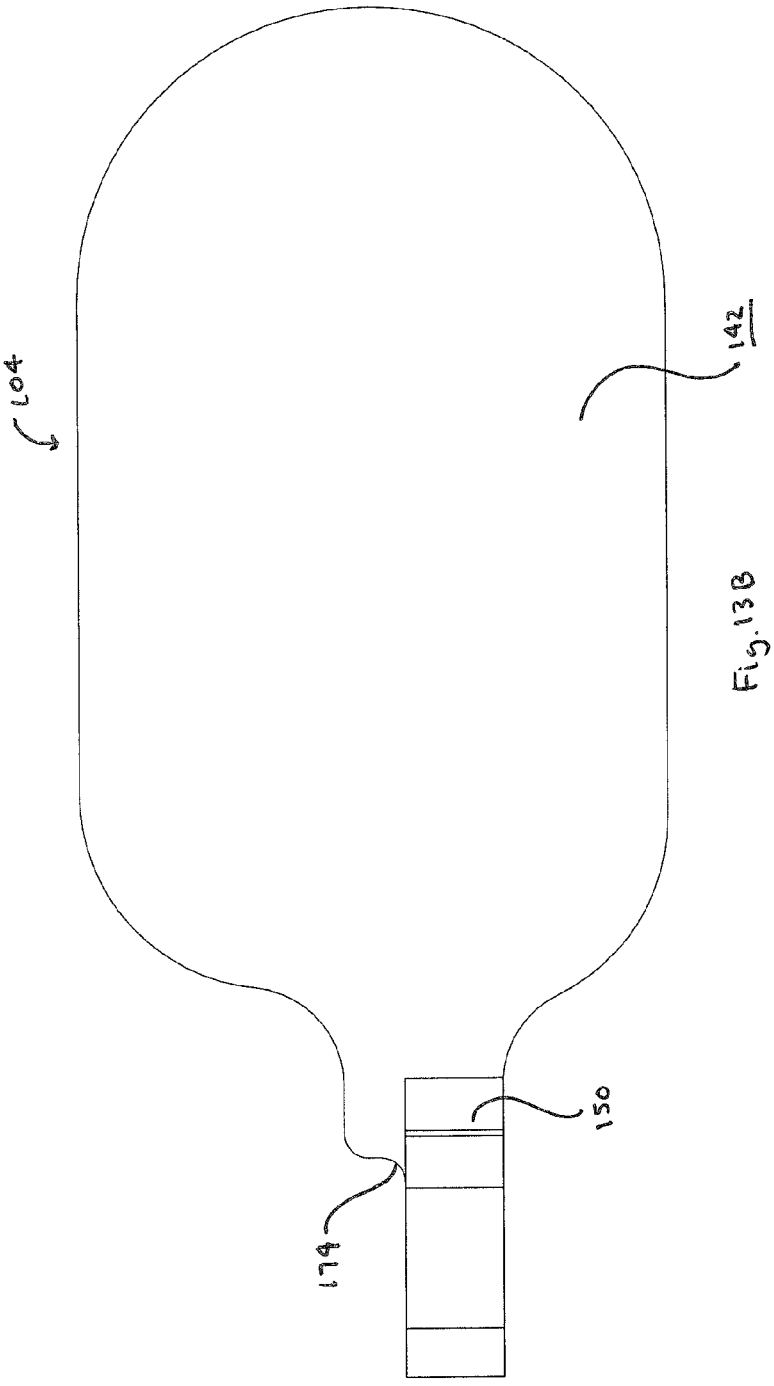

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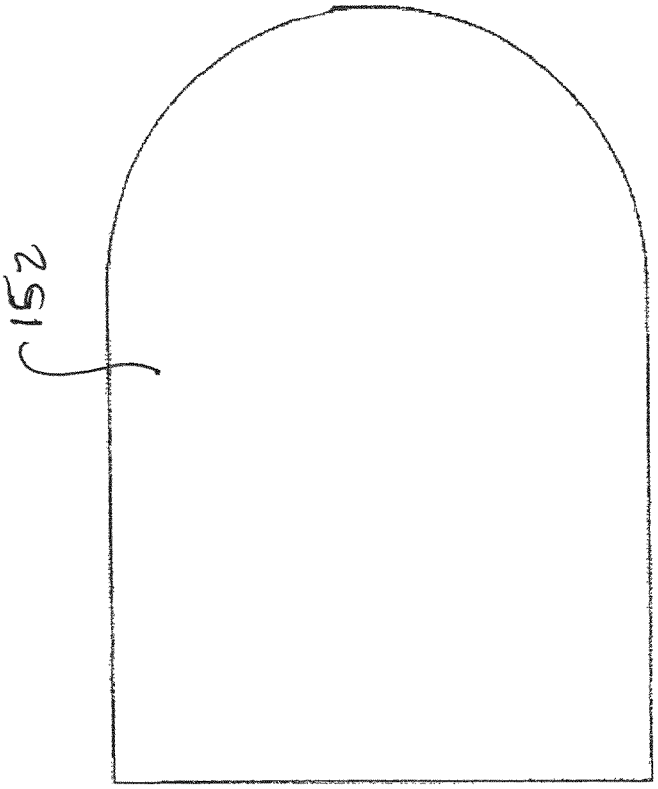

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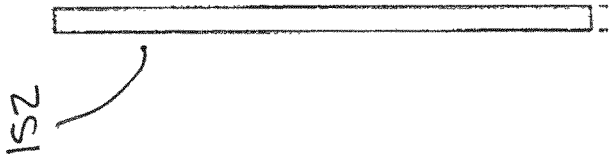

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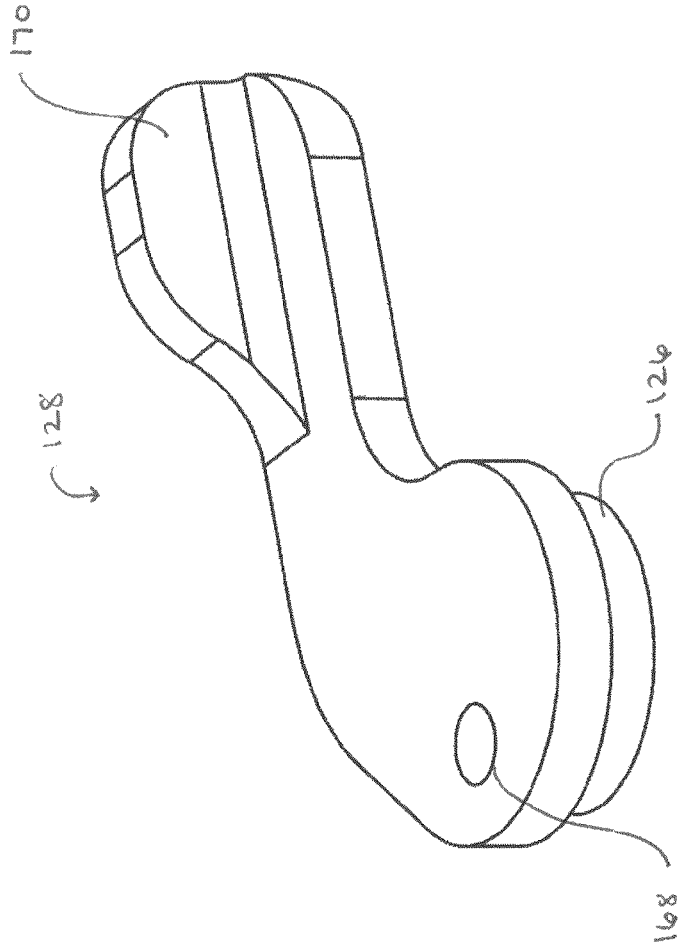

FIG 15B

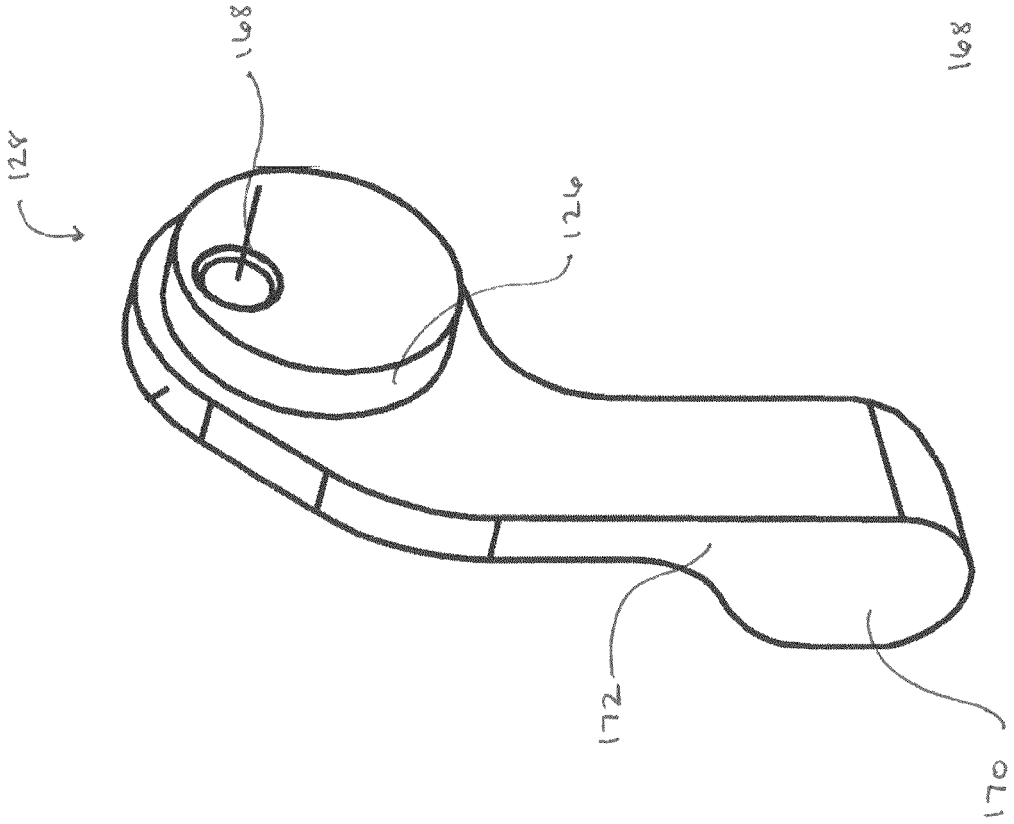

FIG 15A

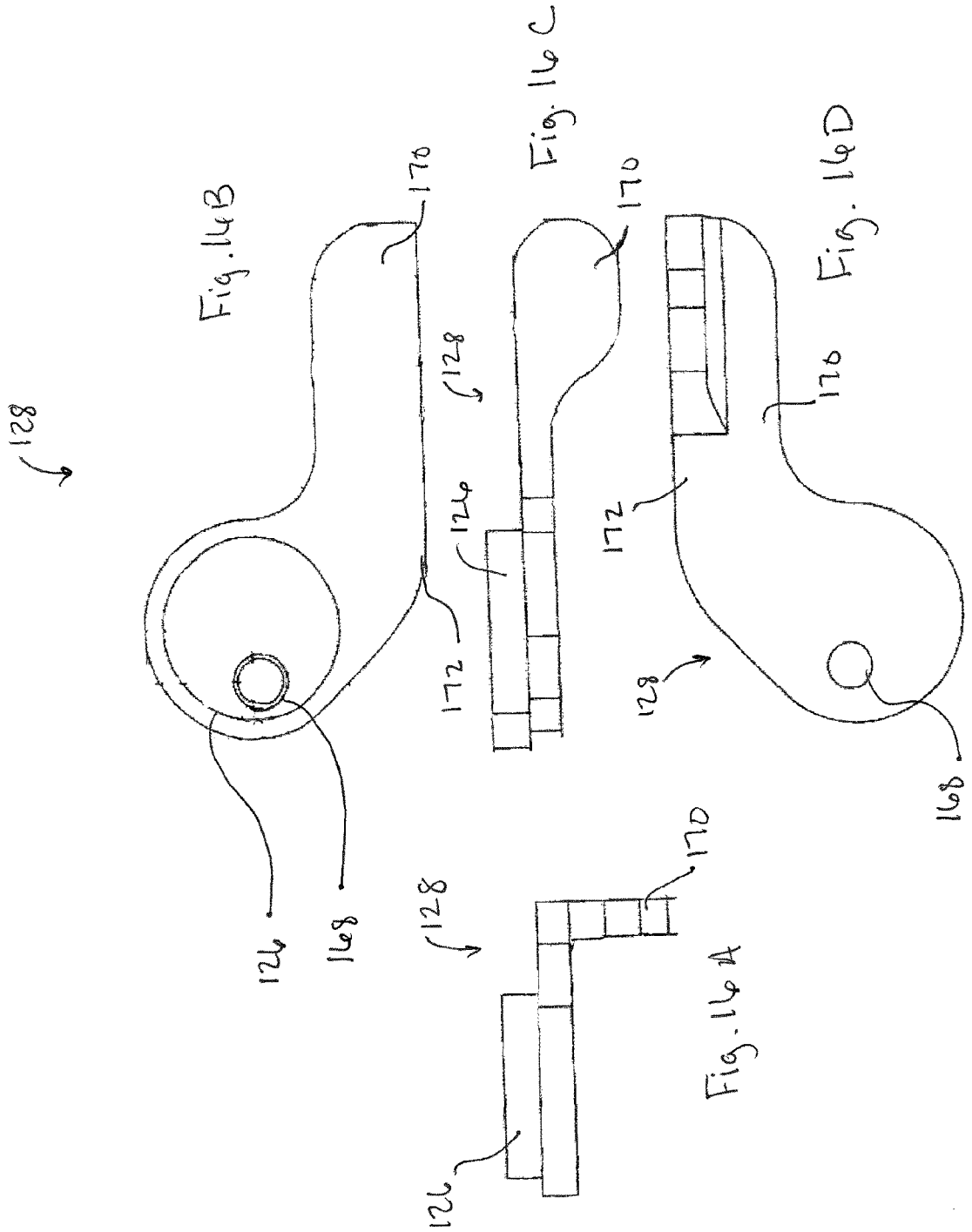
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Fig. 14B
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Fig. 14C
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Fig. 14D
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Fig. 14A
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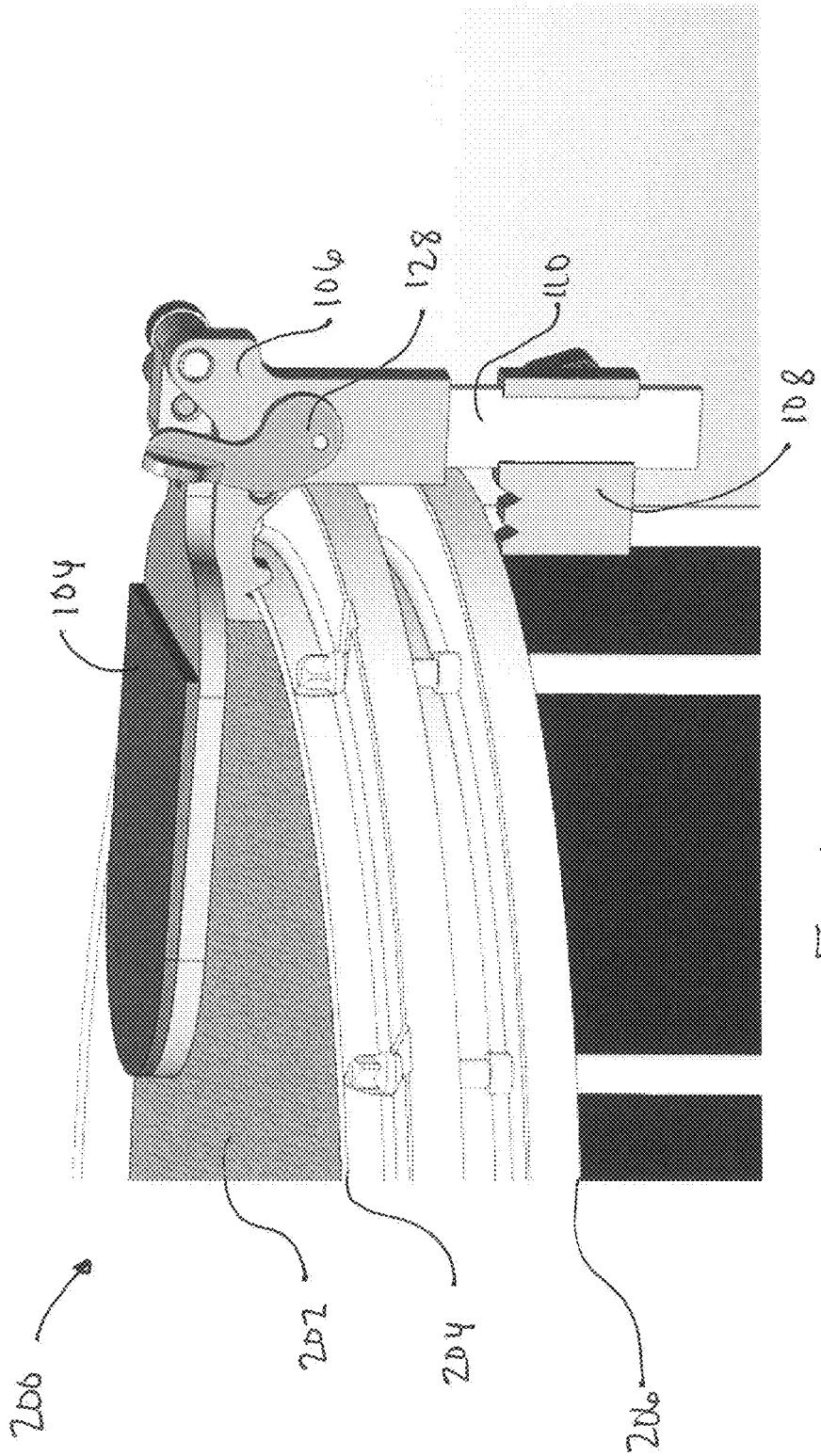
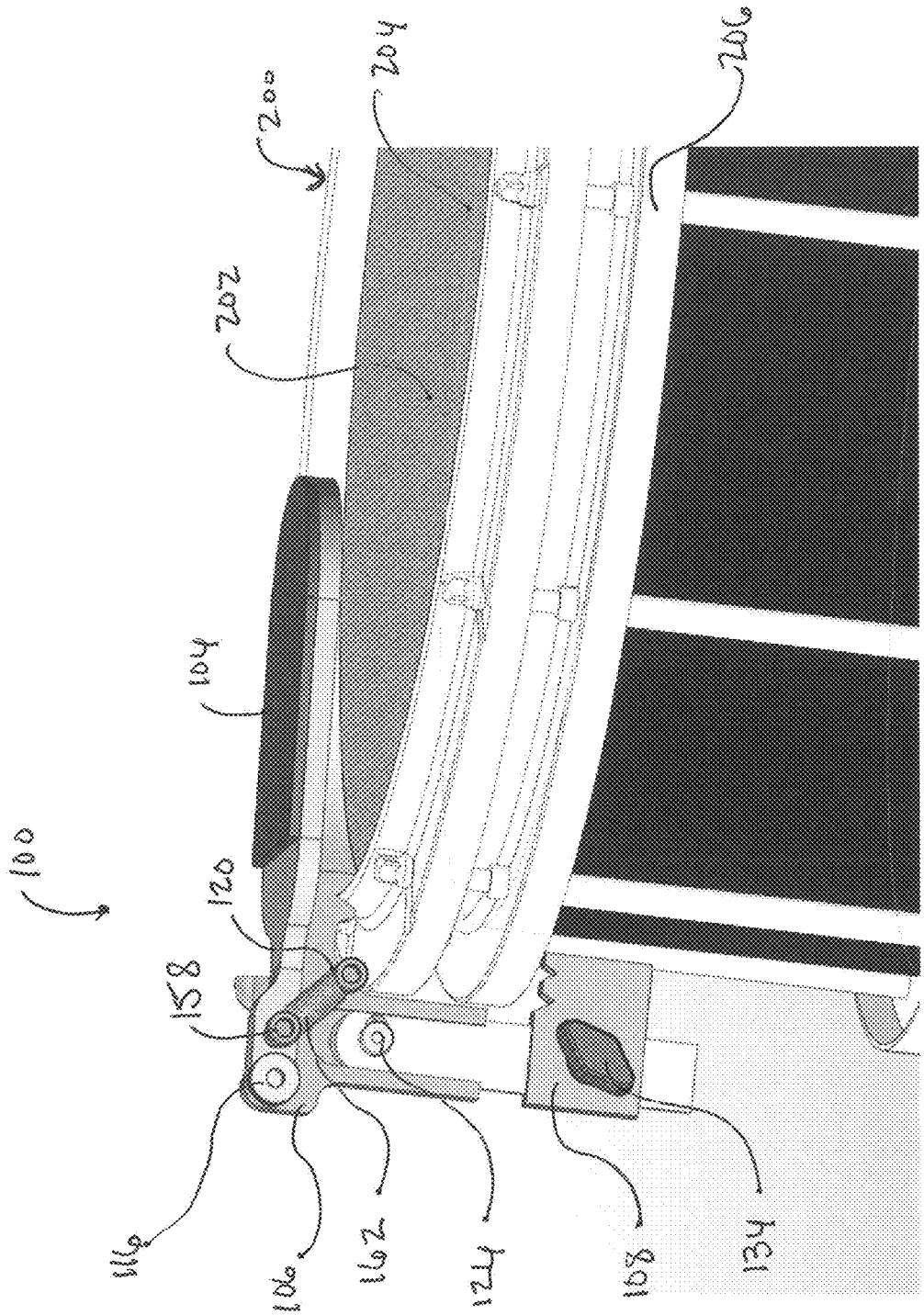


Fig 17



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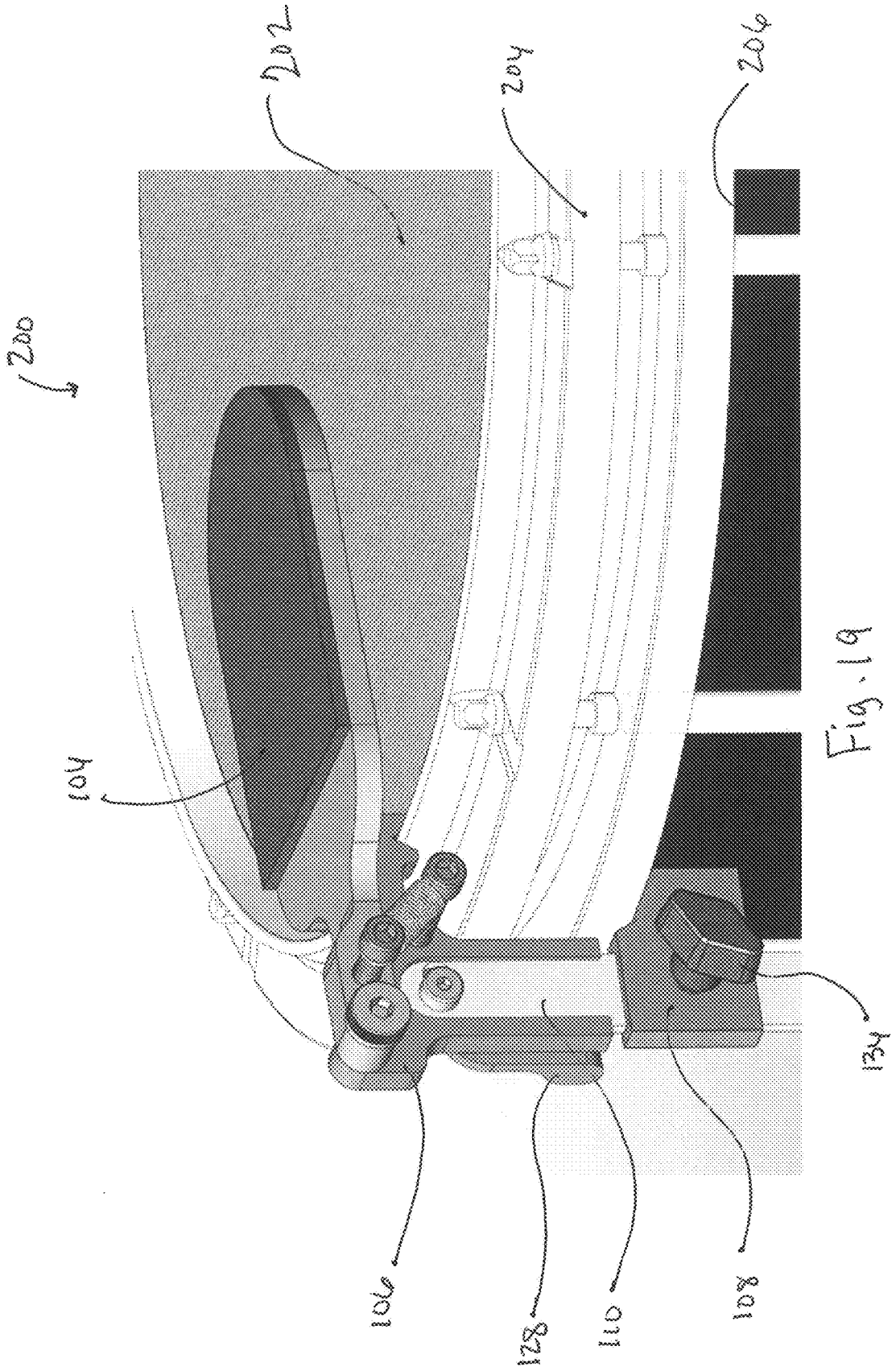

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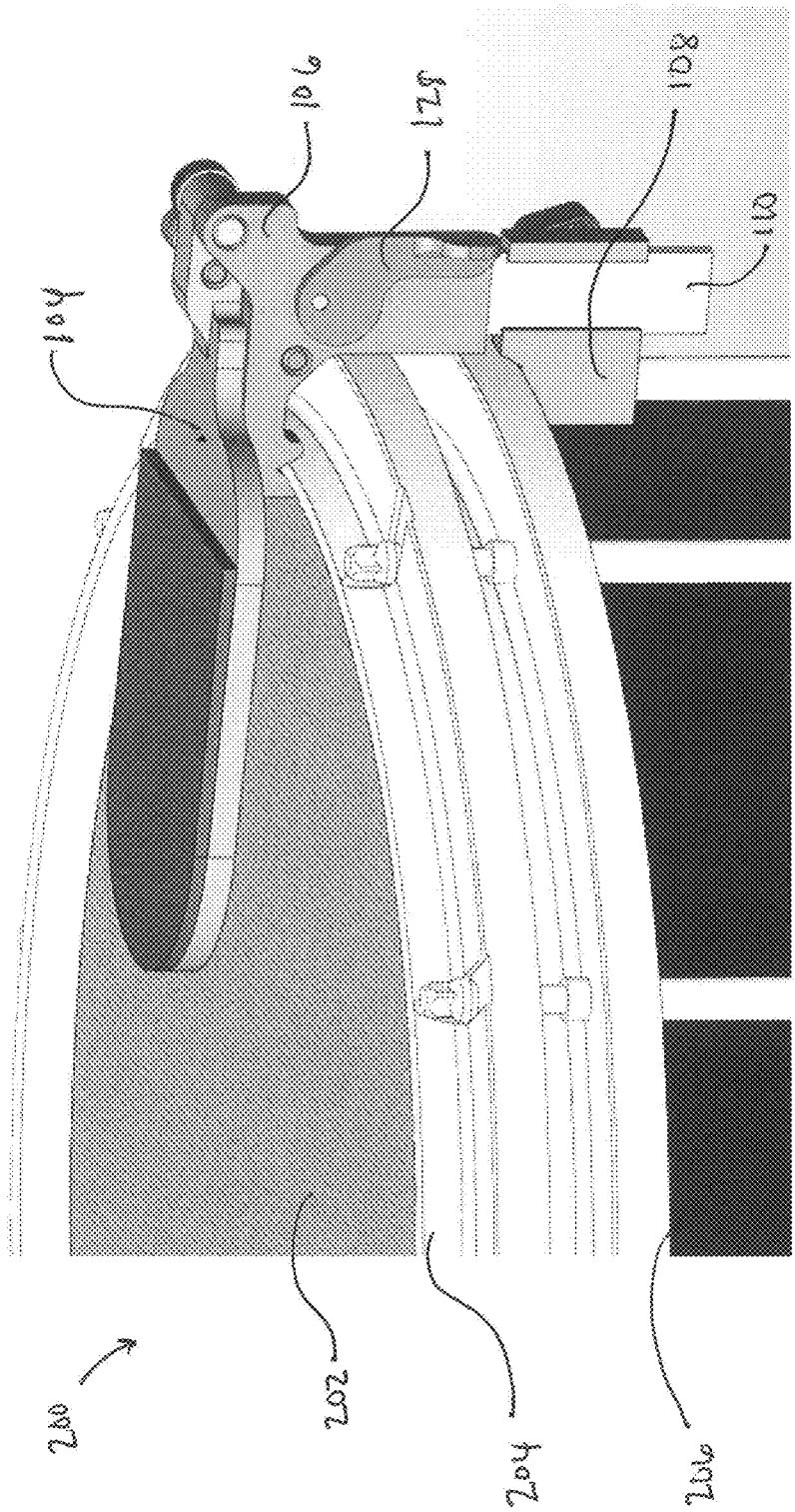
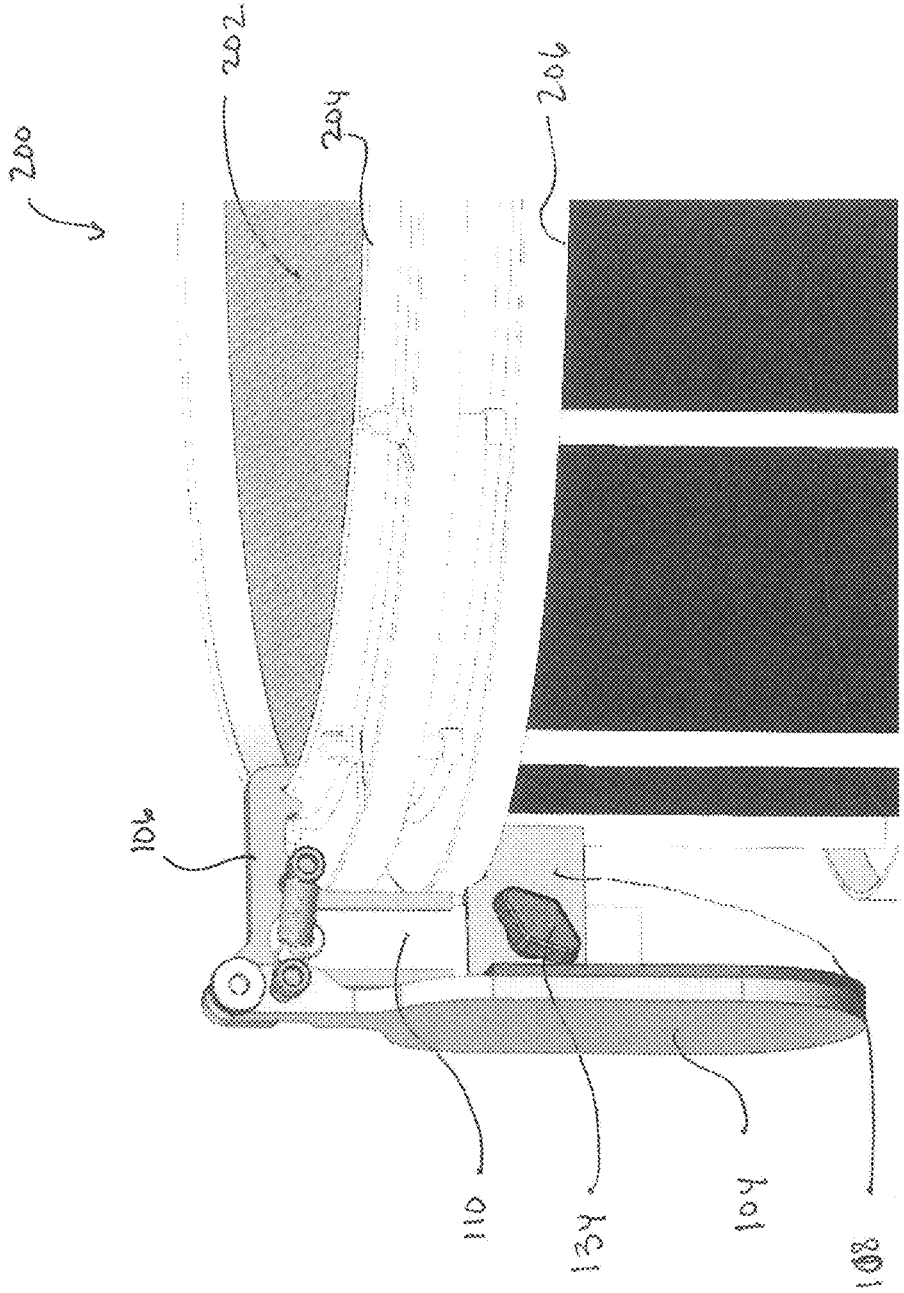


Fig. 2b



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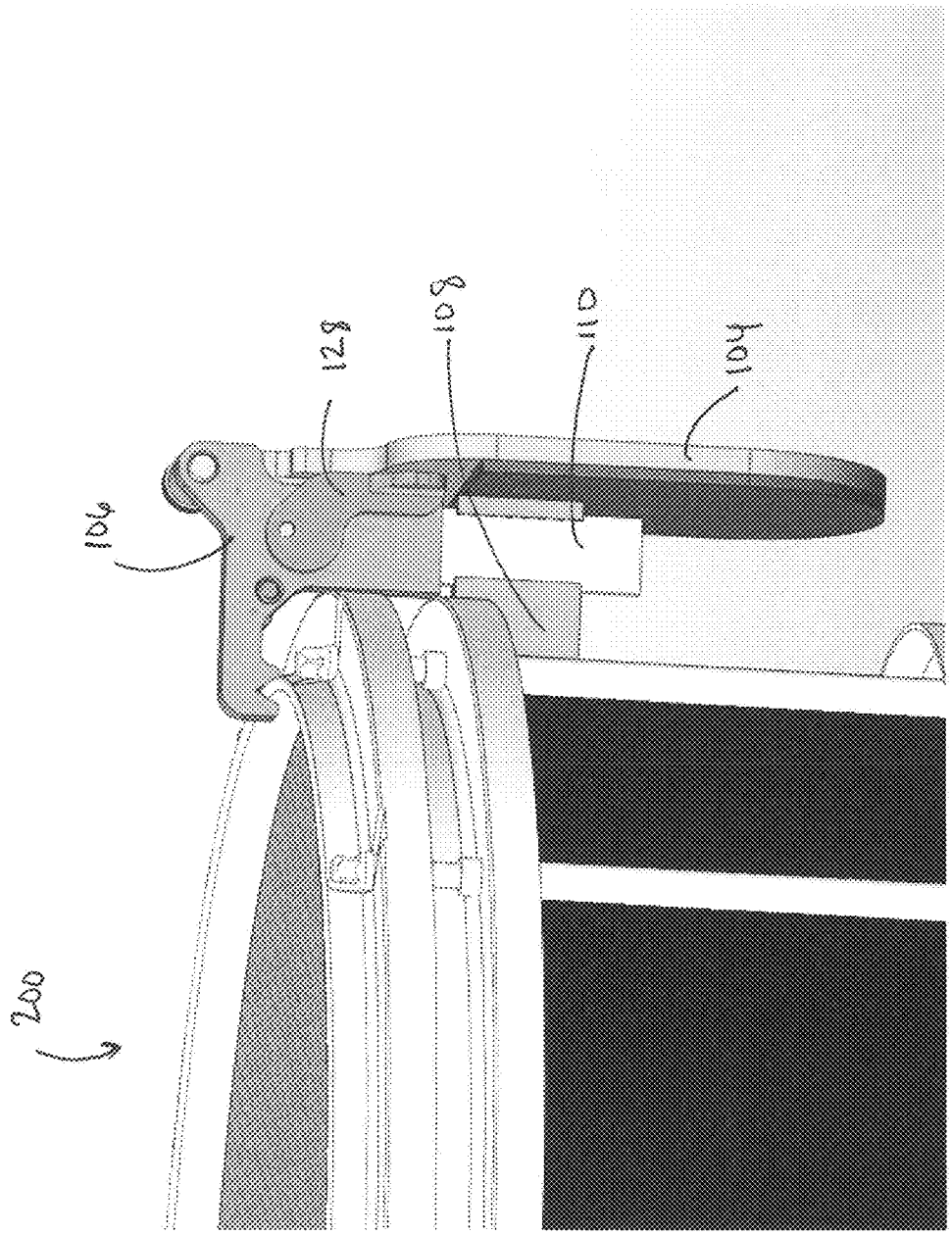

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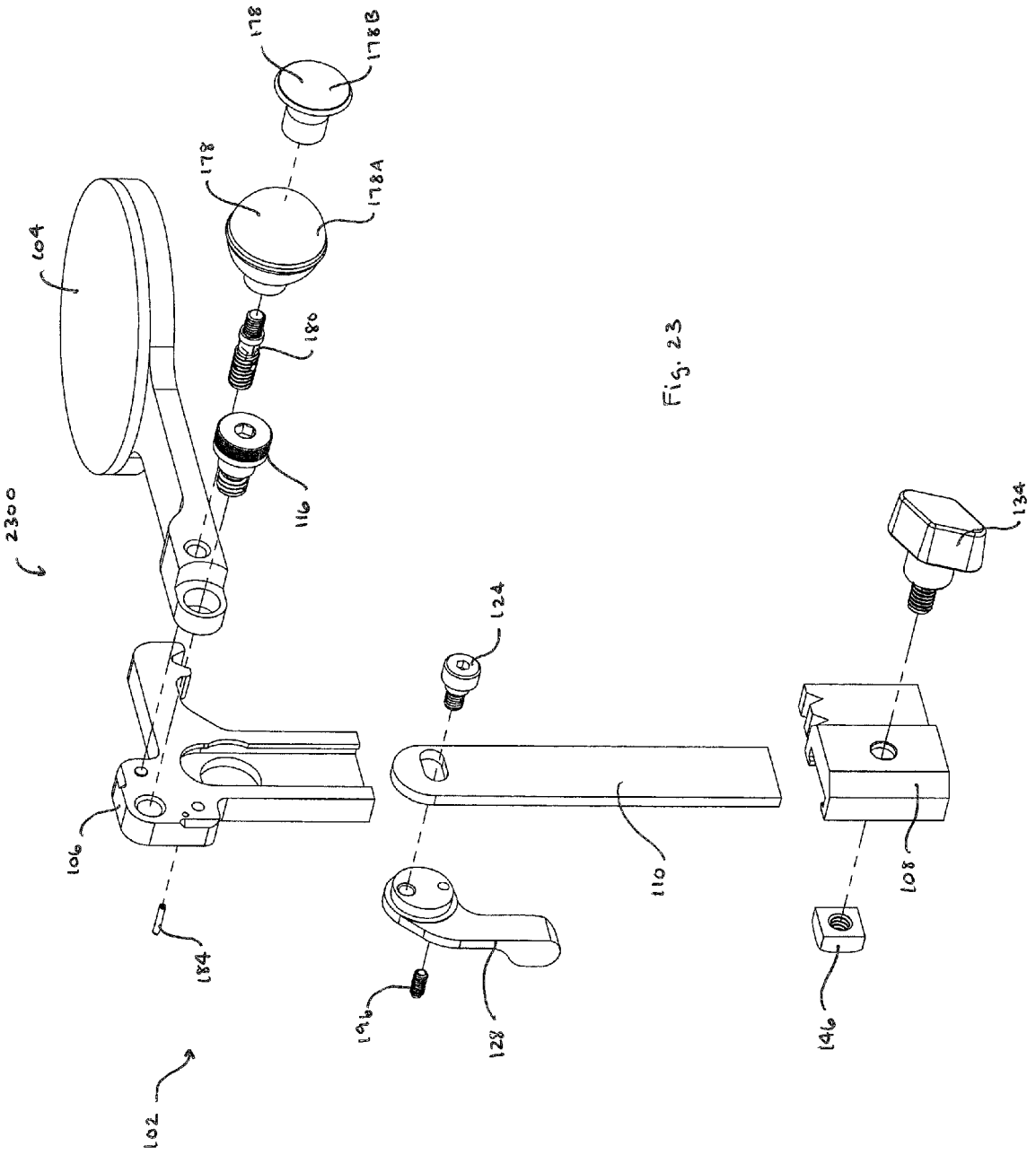
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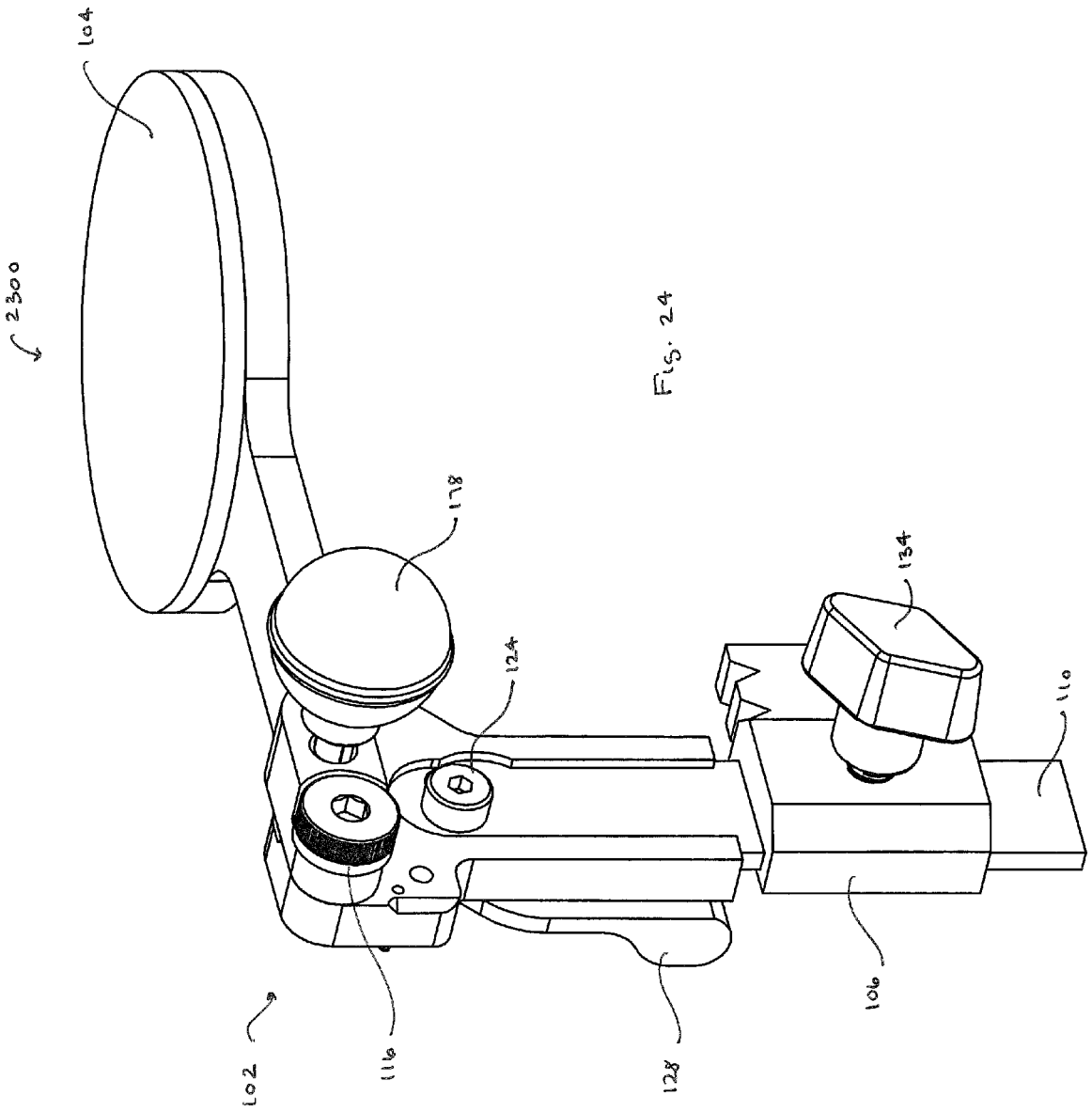
Fig. 23



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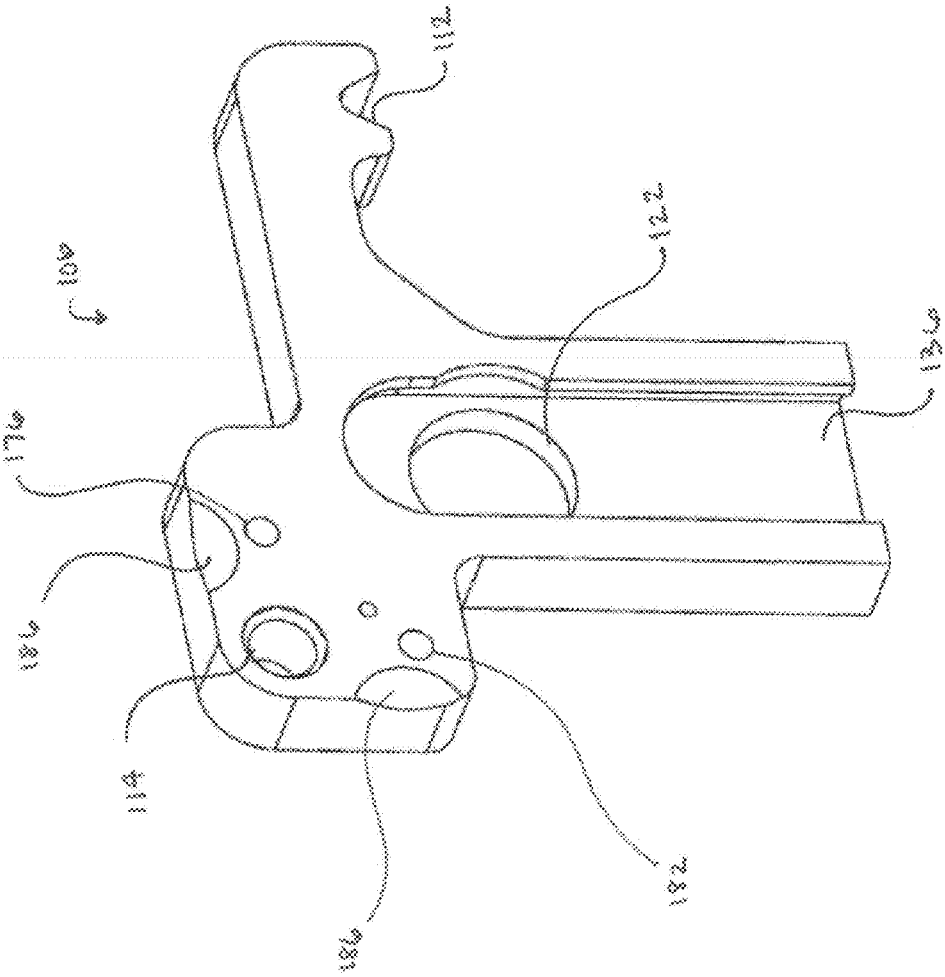

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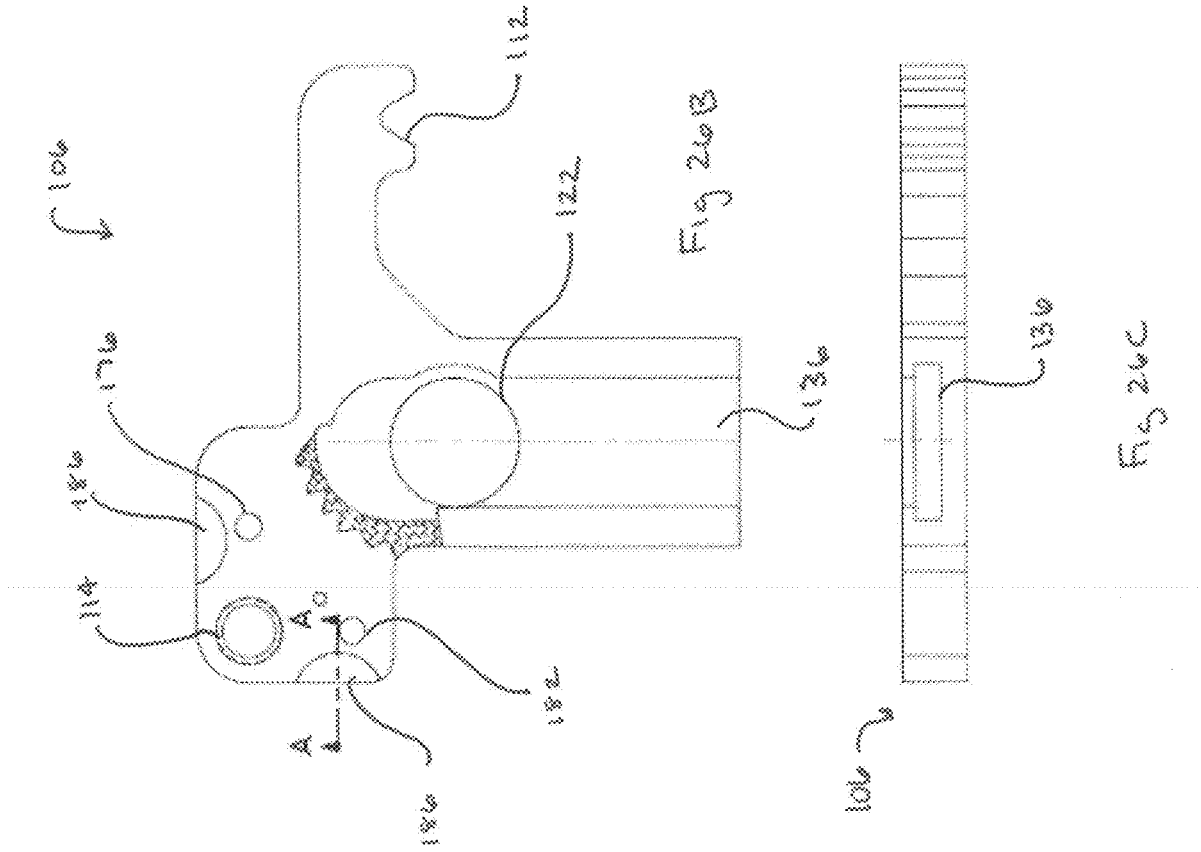


Fig 2A

Fig 2C

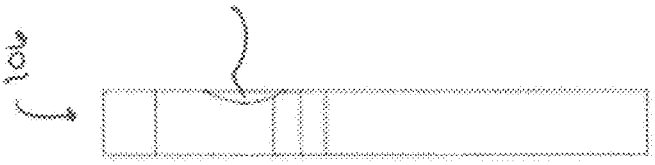
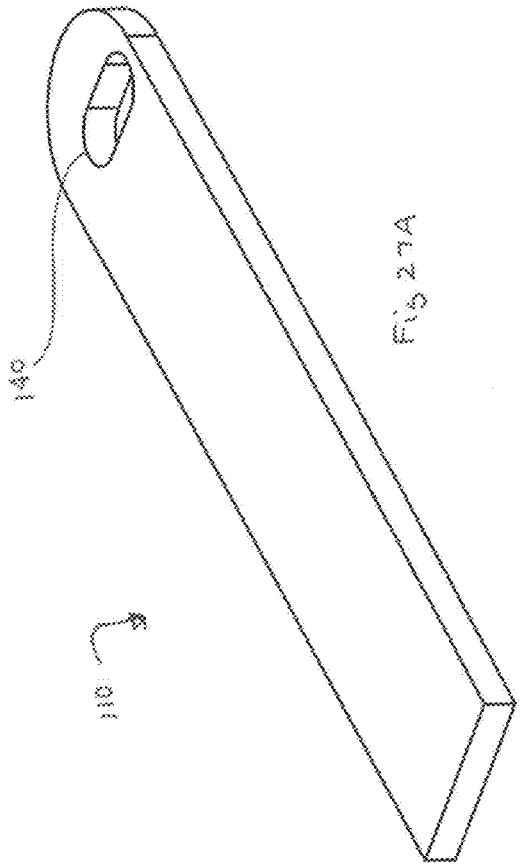


Fig 2A



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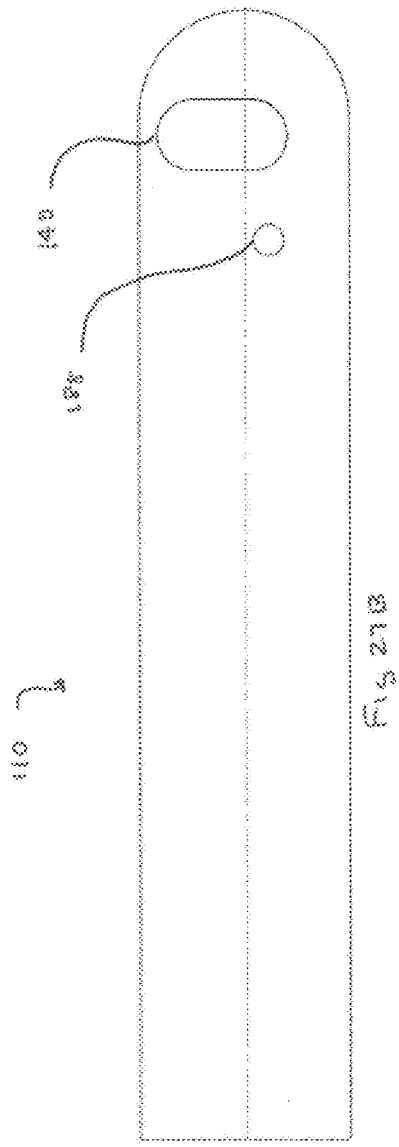

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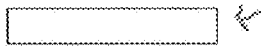
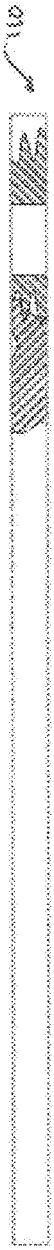


Fig 27D



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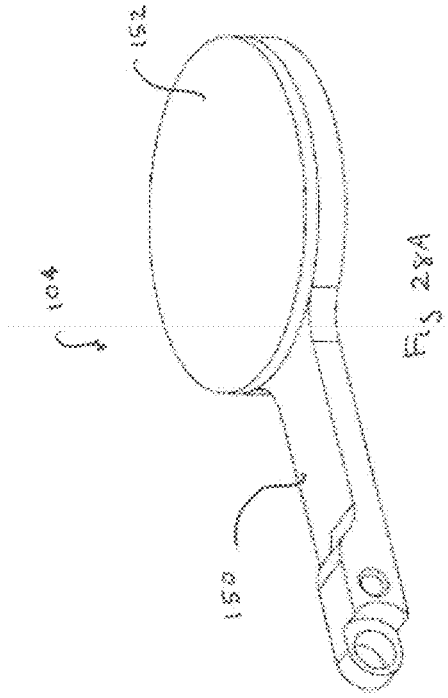
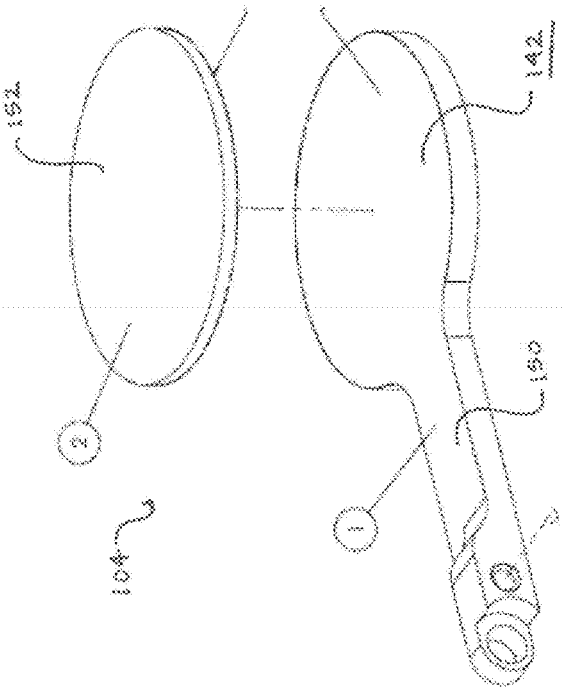


Fig. 2xA



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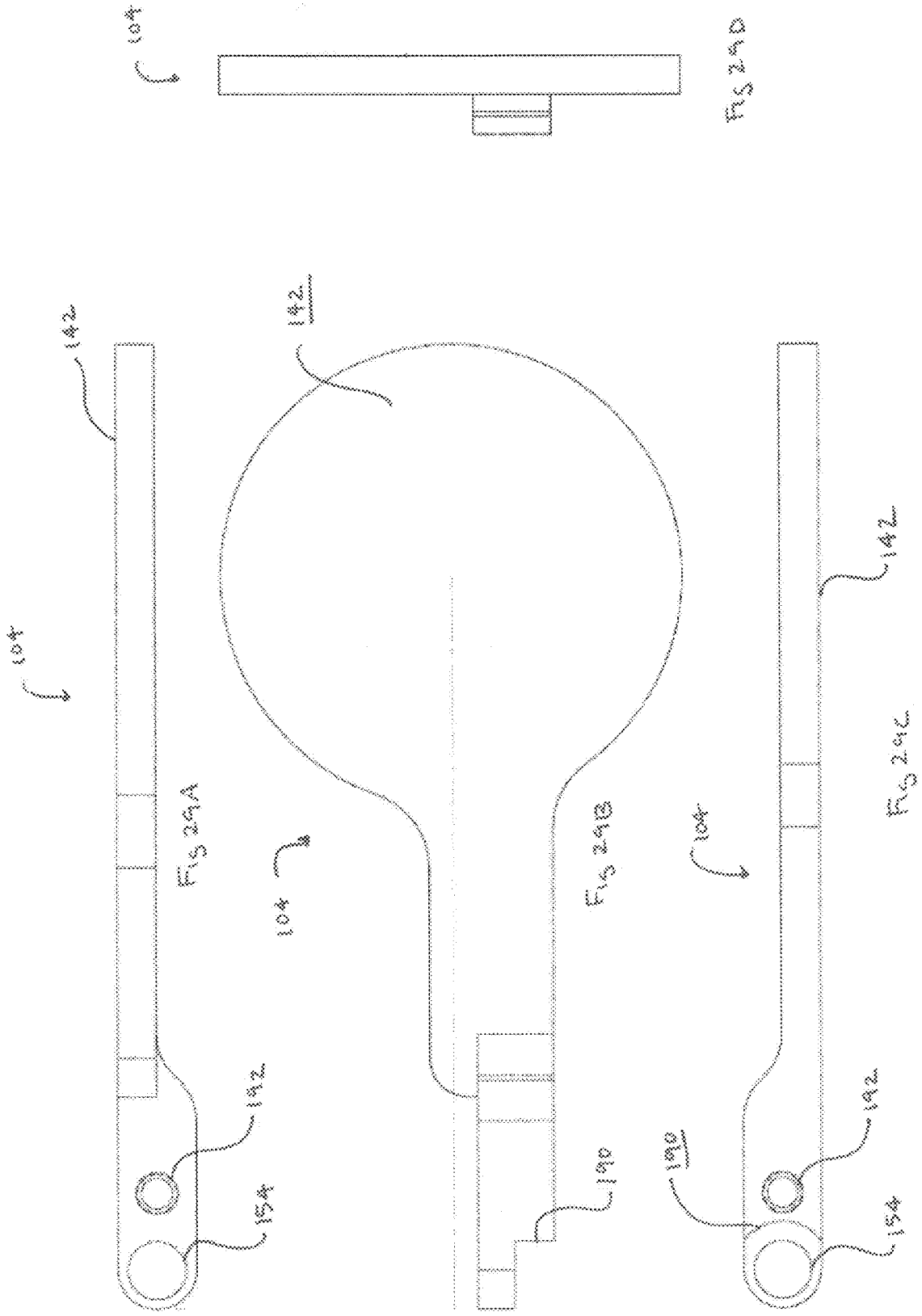
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Fig 24D
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Fig 24A
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Fig 24B
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Fig 24C
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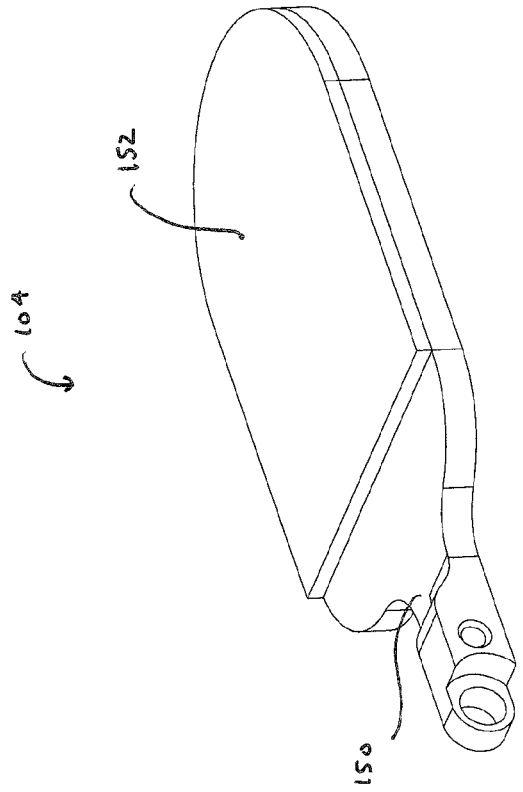
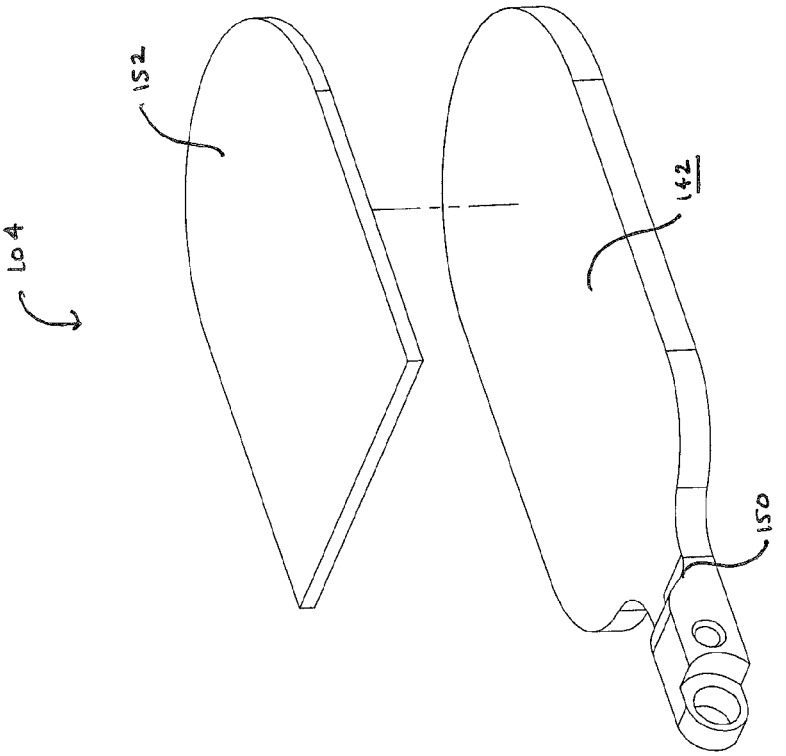


Fig. 30A



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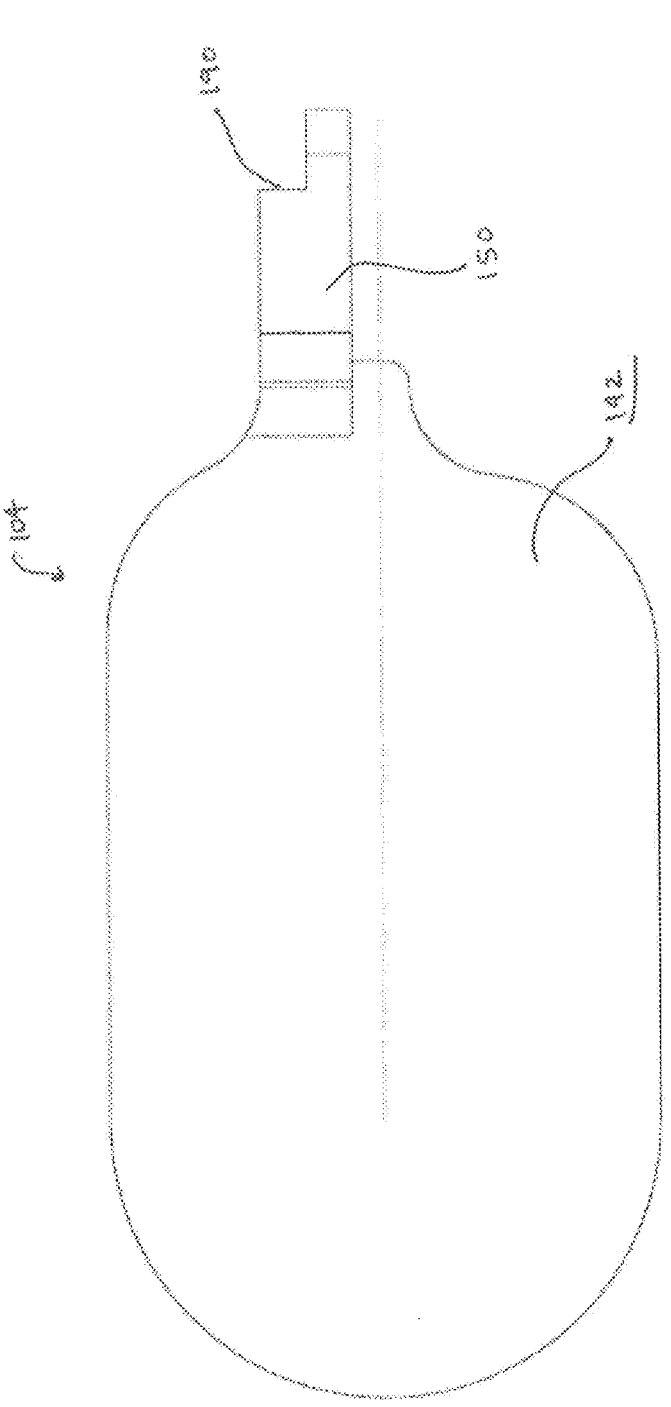

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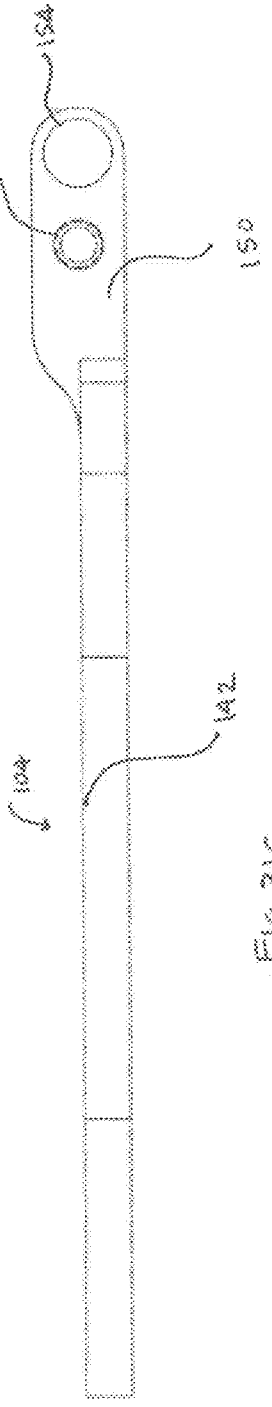

Fig 31C

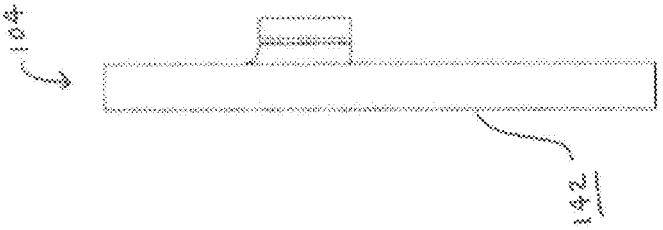

Fig 31A

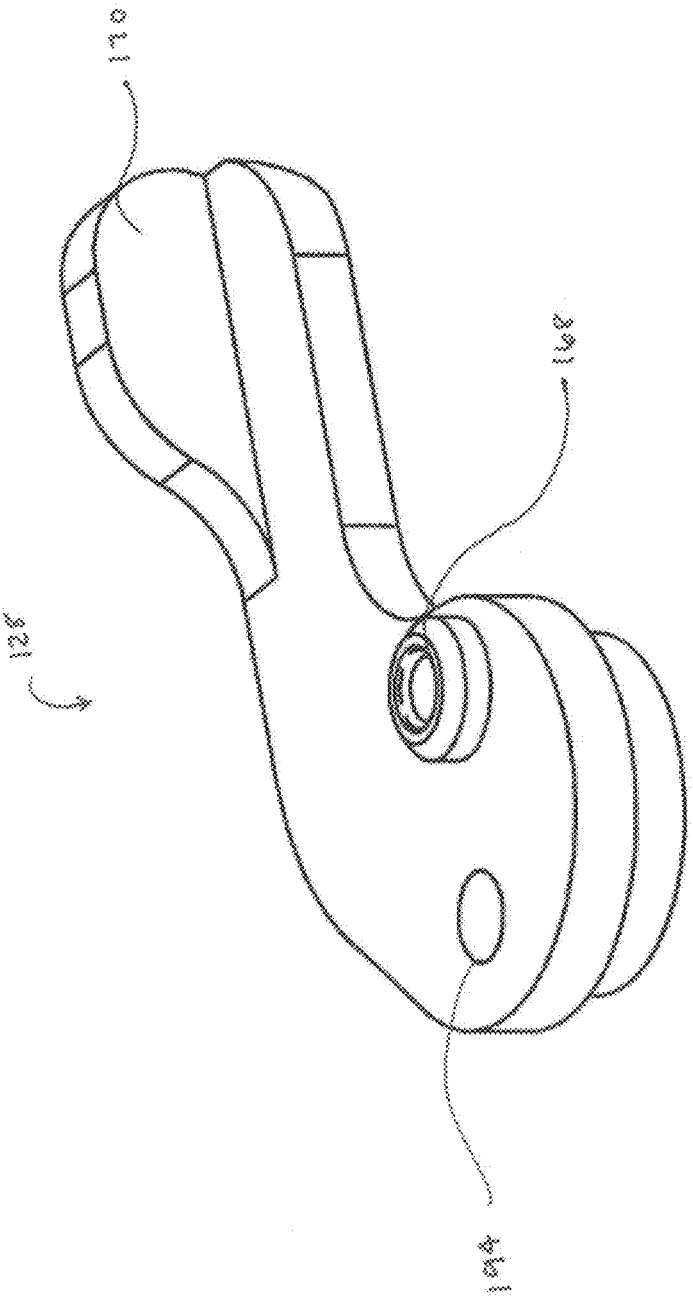

Fig. 32A

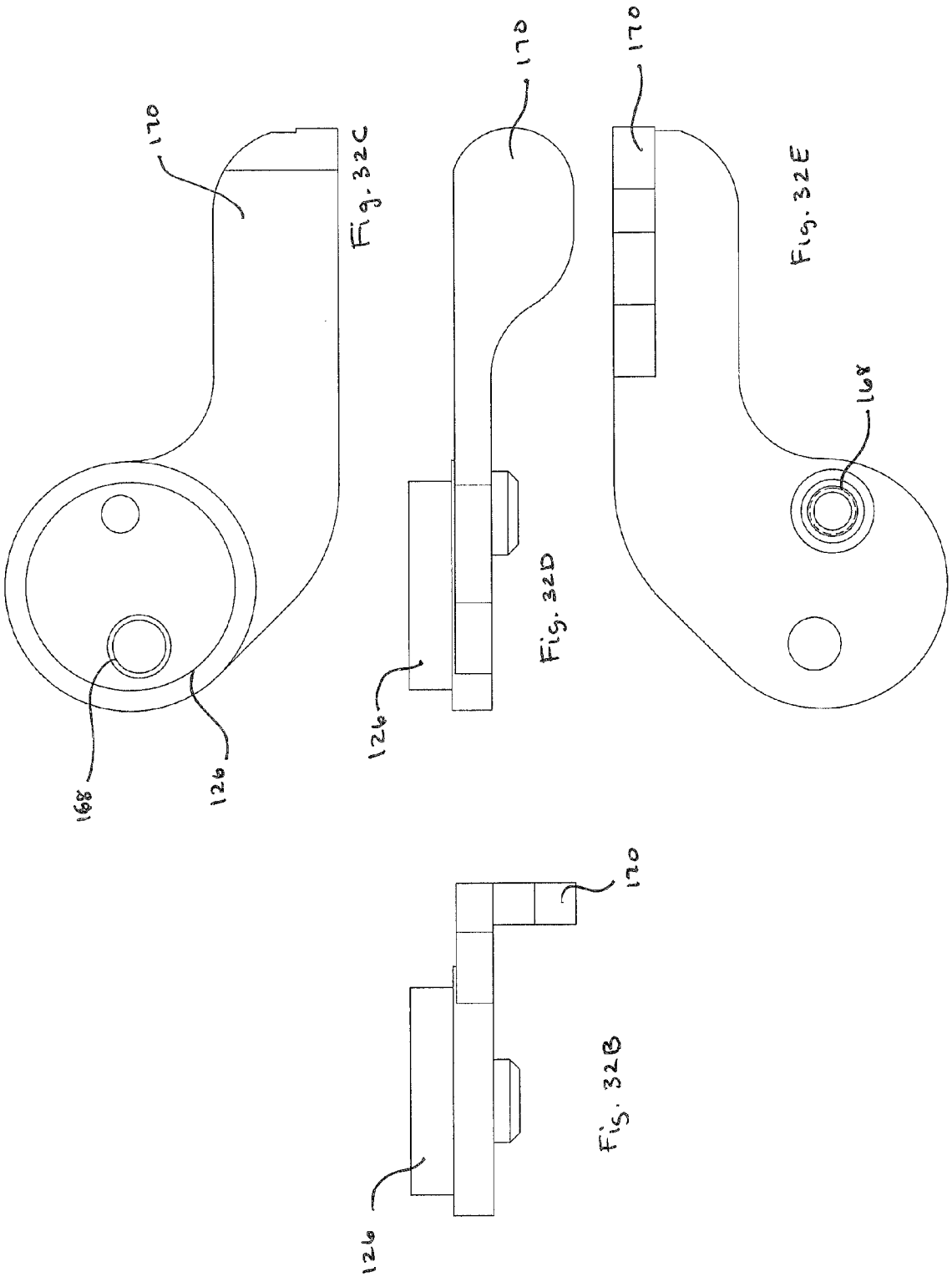

Fig. 32C

Fig. 32D

Fig. 32E

Fig. 32B

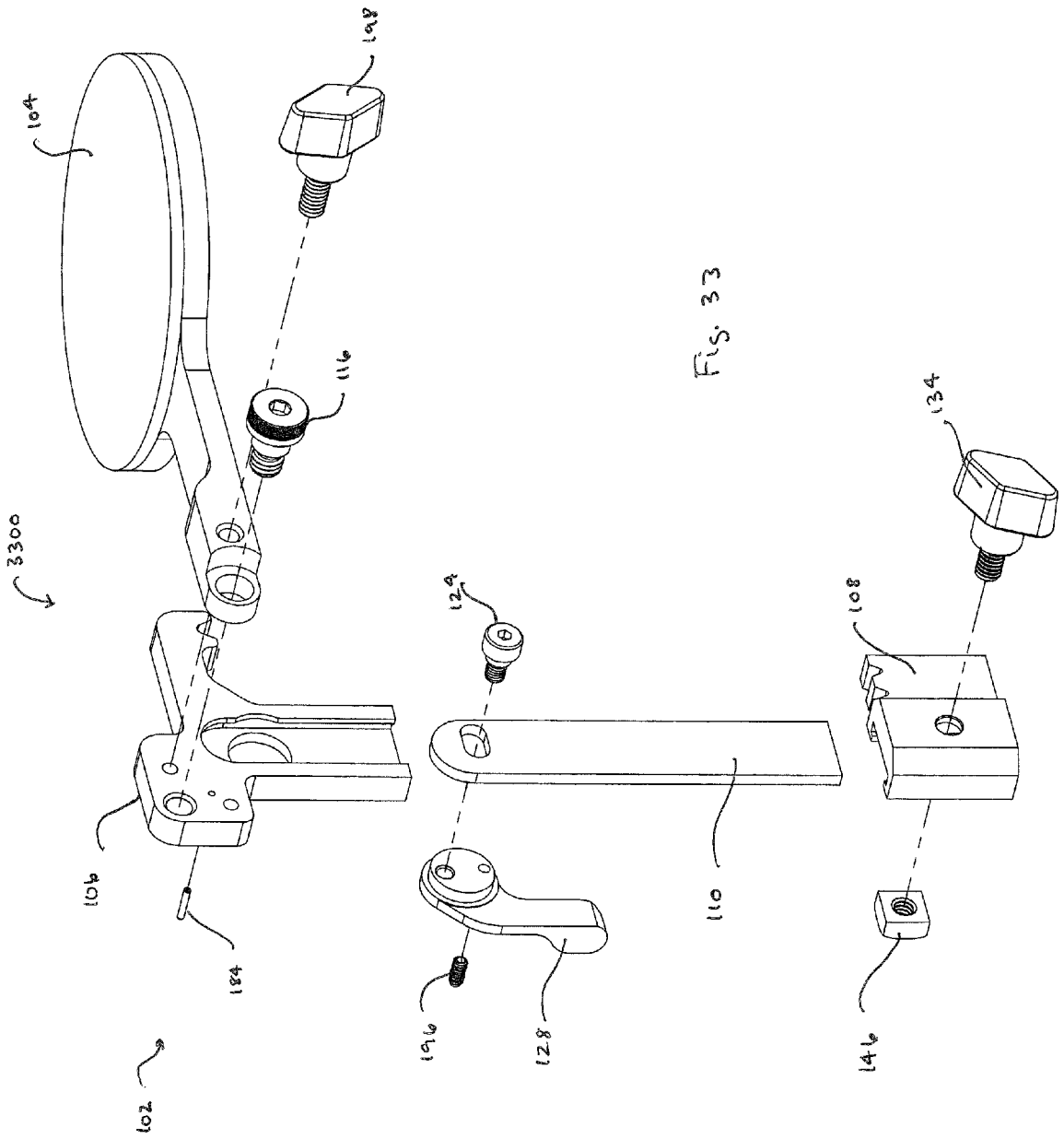

Fig. 33

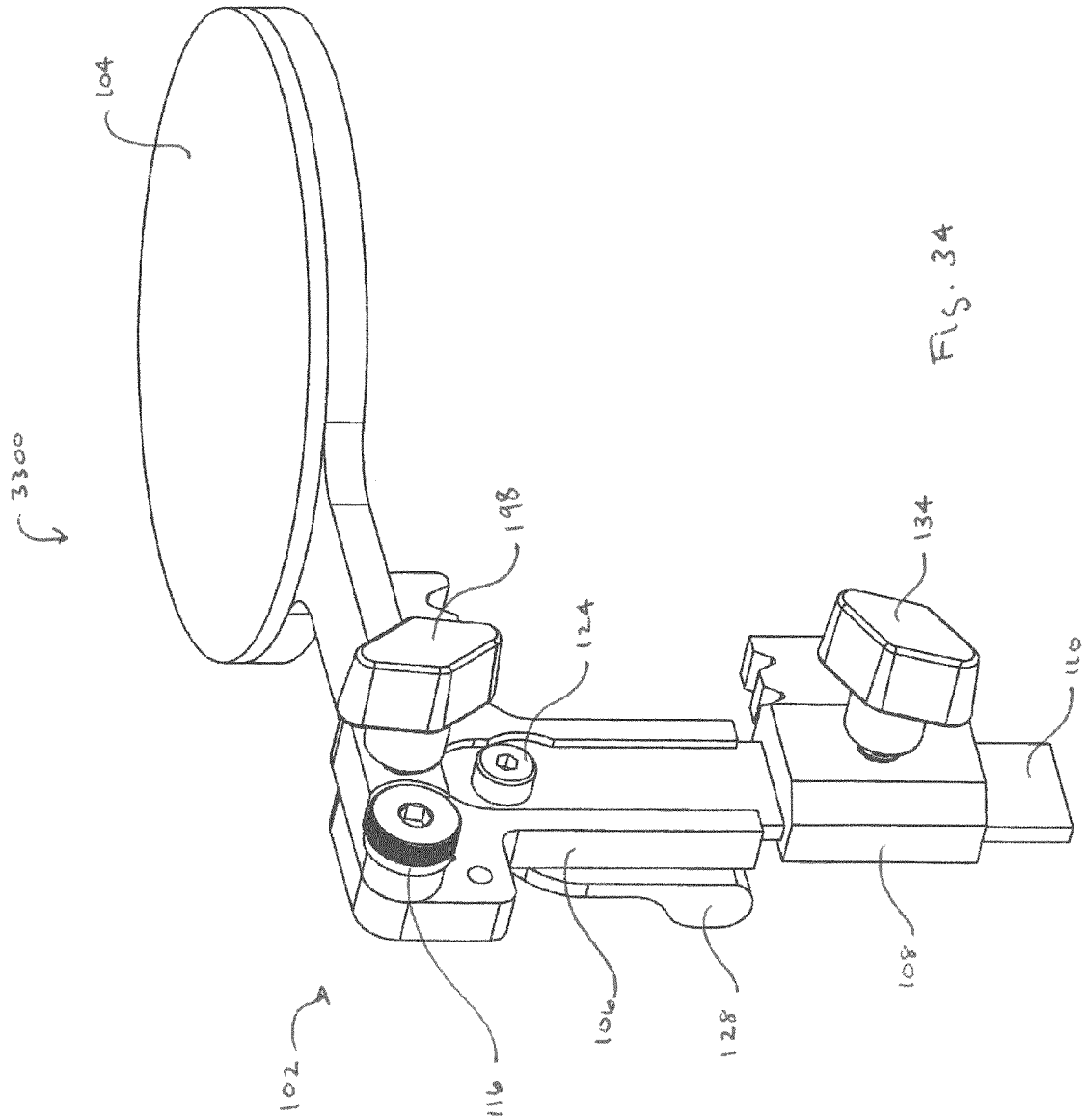

Fig. 34

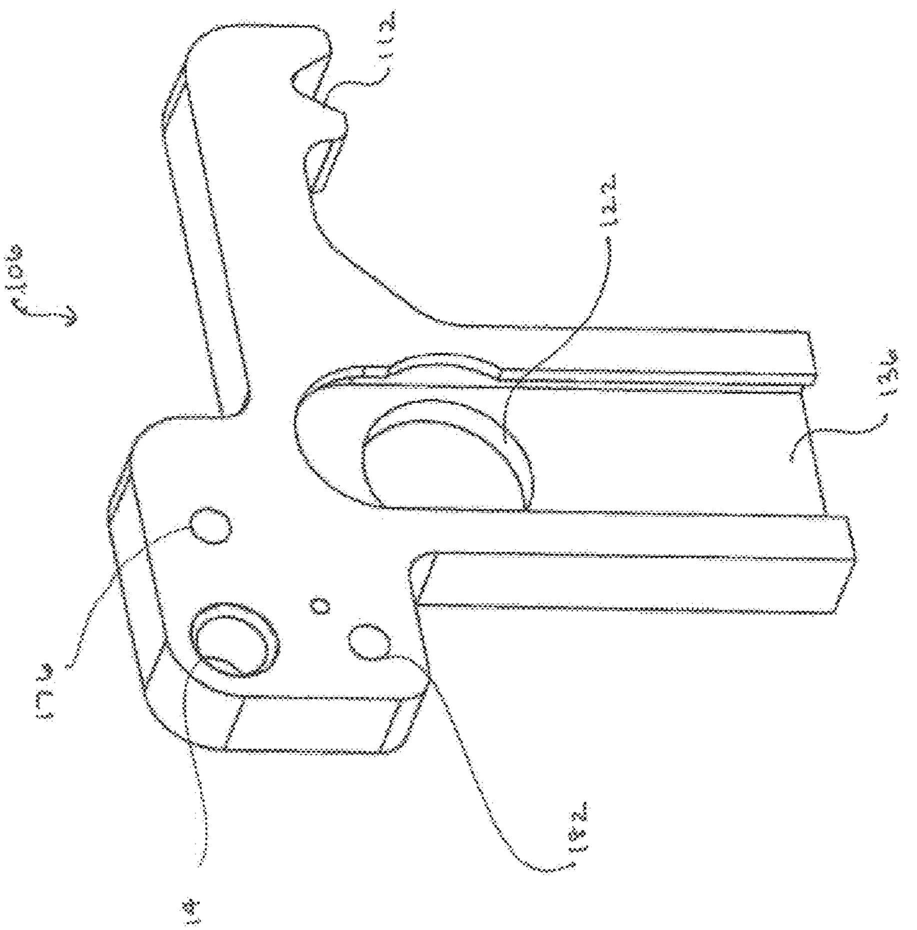

Fig 35

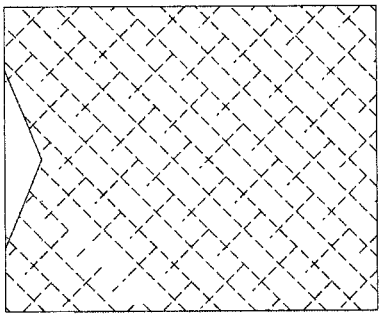

Fig. 36D

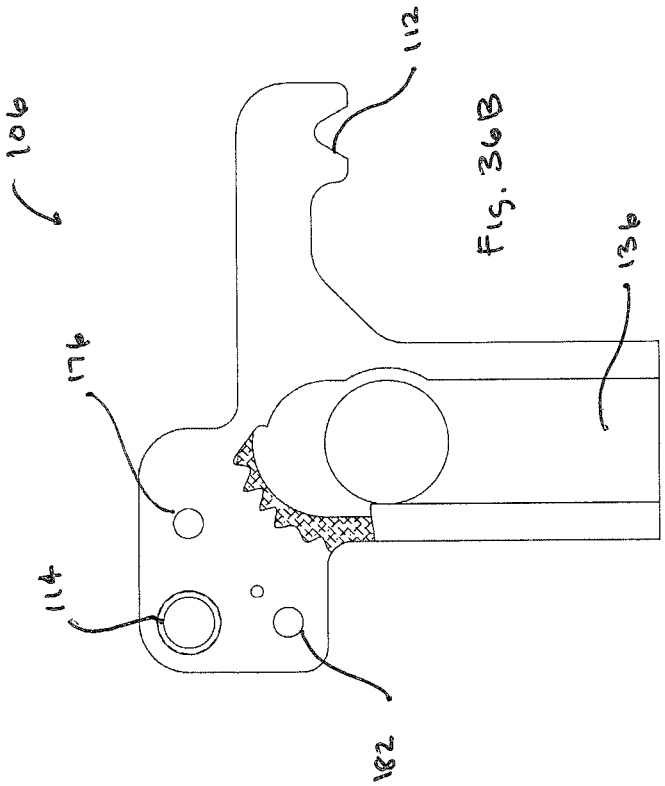

Fig. 36B

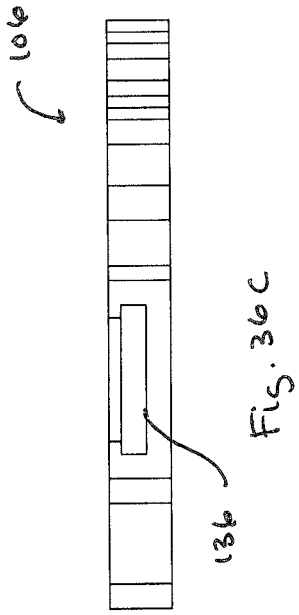

Fig. 36C

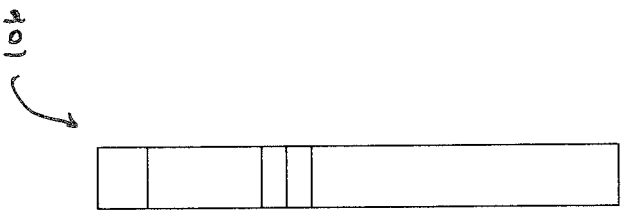

Fig. 36A

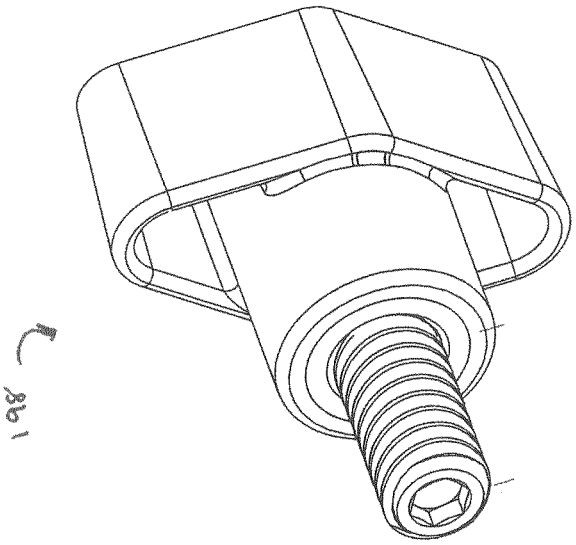

Fig. 37B

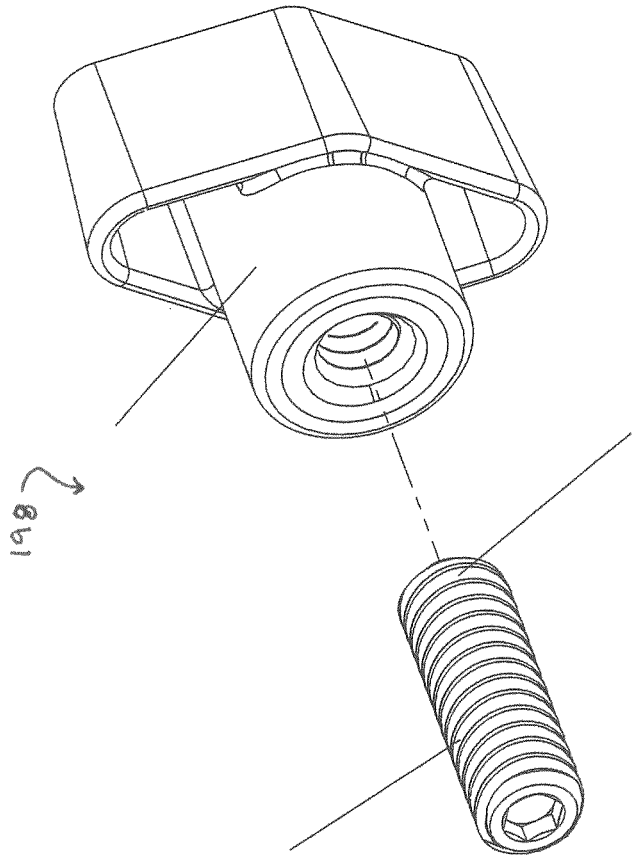

Fig 37A

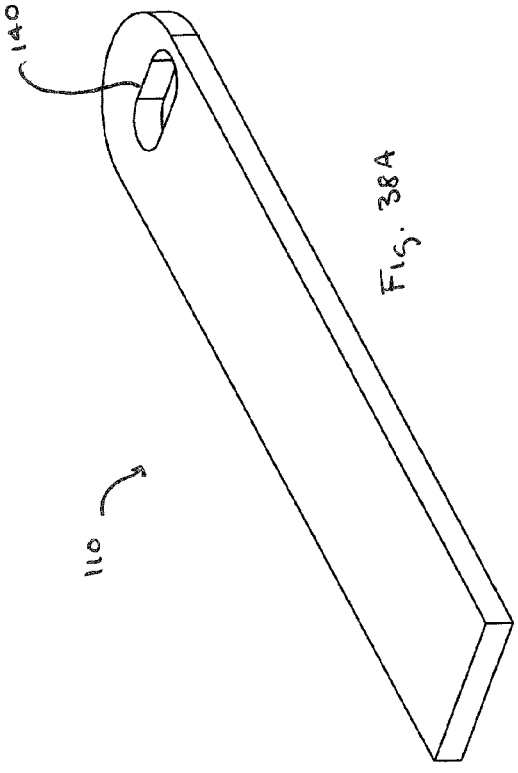

Fig. 38A

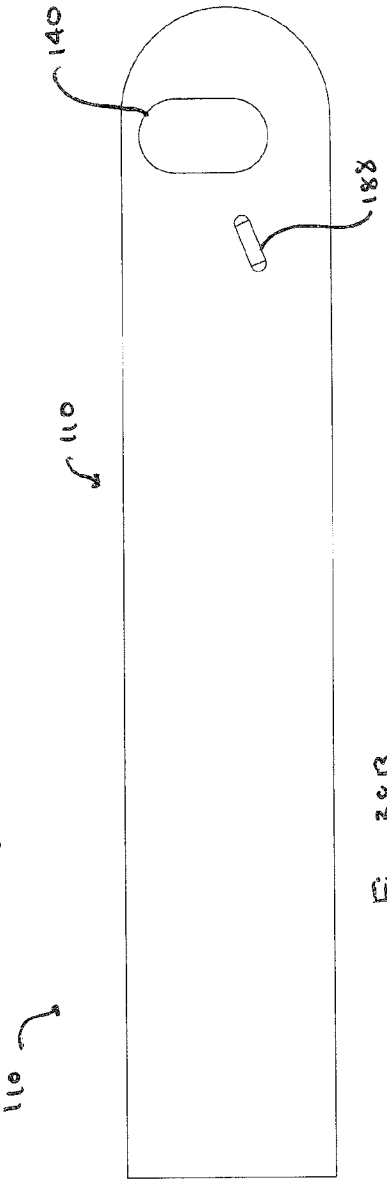

Fig. 38B

Fig. 38C

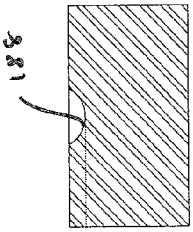

Fig. 38D

PRACTICE PAD FOR PERCUSSION INSTRUMENT

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of priority to U.S. Provisional Application No. 61/887,070, filed Oct. 4, 2013, which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

This invention relates to a drum practice pad. More particularly, a practice pad that can be removably attached to the percussion instrument. The location of the practice pad can be adjusted to simulate the playing surface of an actual drum.

BACKGROUND

Percussion practice pads are used by musicians to simulate a playing experience. Practice pads are frequently used when warming up/practicing before a performance where noise concerns prevent practice on actual percussion instrument. Typically designed to be supported on a flat surface, conventional practice pads are not portable. Other practice pads include pad surfaces attached to stands/mounts, simulating a drum set. As such, neither individual practice pads nor mounted practice pads are portable or otherwise associated with an actual percussion instrument. That is, conventional practice pads must be supported by a stand/mount or tabletop surface. Thus, there remains a need for a practice pad that is both portable and easily associated and/or affixed to a corresponding percussion instrument.

SUMMARY

Presented are systems and methods for providing a playing surface to a percussion instrument. An aspect of the present disclosure is directed to an apparatus providing a removable playing surface. The apparatus may include a mount assembly for fixing the apparatus to the percussion instrument. The apparatus may further include a paddle providing the playing surface. The paddle may be coupled to the mount such that the paddle is movable between a playing position over the head of the percussion instrument and in a non-playing position away from the head of the percussion instrument.

The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

The device is explained in even greater detail in the following drawings. The drawings are merely examples to illustrate the structure of preferred devices and certain features that may be used singularly or in combination with other features. The invention should not be limited to the examples shown.

FIG. **1** is a perspective view of an example apparatus;

FIG. **2** is an exploded perspective view of an example apparatus;

FIG. **3** is a perspective view of an example upper clamp member;

FIG. **4**A is a side view of an example upper clamp member;

FIG. **4**B is a front view of an example upper clamp member;

FIG. **4**C is an end view of an example upper clamp member;

FIG. **5**A is a front perspective view of an example lower clamp member;

FIG. **5**B is a back perspective view of an example lower clamp member;

FIG. **6**A is a top view of an example lower clamp member;

FIG. **6**B is a front view of an example lower clamp member;

FIG. **6**C is a side view of an example lower clamp member;

FIG. **6**D is a back view of an example lower clamp member;

FIG. **7**A is a perspective view of an example draw bar;

FIG. **7**B is a front view of an example draw bar;

FIG. **7**C is a side view of an example draw bar;

FIG. **8**A is an exploded view of an example locking member;

FIG. **8**B is a perspective view of an example locking member;

FIG. **9**A is a perspective view of an example paddle;

FIG. **9**B is an exploded view of an example paddle;

FIG. **10**A is a side view of the example paddle of FIG. **9**;

FIG. **10**B is a top view of the example paddle of FIG. **9**;

FIG. **10**C is a side view of the example paddle of FIG. **9**;

FIG. **11**A is a top view of the example pad of FIG. **9**;

FIG. **11**B is a side view of the example pad of FIG. **9**;

FIG. **12**A is a perspective view of an example paddle;

FIG. **12**B is an exploded view of an example paddle;

FIG. **13**A is a side view of the example paddle of FIG. **12**;

FIG. **13**B is a top view of the example paddle of FIG. **12**;

FIG. **13**C is a side view of the example paddle of FIG. **12**;

FIG. **14**A is a side view of the example pad of FIG. **12**;

FIG. **14**B is a top view of the example pad of FIG. **12**;

FIG. **15**A is a perspective view of an example handle;

FIG. **15**B is a perspective view of an example handle;

FIG. **16**A is a side view of the example handle of FIG. **15**;

FIG. **16**B is a back view of the example handle of FIG. **15**;

FIG. **16**C is a side view of the example handle of FIG. **15**;

FIG. **16**D is a front view of the example handle of FIG. **15**;

FIG. **17** is a perspective view of an example apparatus and percussion instrument;

FIG. **18** is a perspective view of an example apparatus and percussion instrument;

FIG. **19** is a perspective view of an example apparatus coupled to a percussion instrument;

FIG. **20** is a perspective view of an example apparatus coupled to a percussion instrument;

FIG. **21** is a perspective view of an example apparatus coupled to a percussion instrument;

FIG. **22** is a perspective view of an example apparatus coupled to a percussion instrument;

FIG. **23** is a perspective view of an example apparatus according to another embodiment;

FIG. **24** is an exploded perspective view of the example apparatus of FIG. **23**;

FIG. **25** is a perspective view of an upper clamp member;

FIG. **26**A is a side view of an example upper clamp member;

FIG. **26**B is a front view of an example upper clamp member;

FIG. **26**C is an end view of an example upper clamp member;

FIG. **27**A is a perspective view of an example draw bar;

FIG. **27**B is a bottom view of an example draw bar;

FIG. **27**C is a side view of an example draw bar;

FIG. **27**D is an end view of an example draw bar;

FIG. **28**A is a perspective view of an example paddle;

FIG. **28**B is an exploded view of an example paddle;
FIG. **29**A is a side view of the example paddle of FIG. **28**;
FIG. **29**B is a top view of the example paddle of FIG. **28**;
FIG. **29**C is a side view of the example paddle of FIG. **28**;
FIG. **29**D is an end view of the example paddle of FIG. **28**;
FIG. **30**A is a perspective view of an example paddle;
FIG. **30**B is an exploded view of an example paddle;
FIG. **31**A is an end view of the example paddle of FIG. **30**;
FIG. **31**B is a top view of the example paddle of FIG. **30**;
FIG. **31**C is a side view of the example paddle of FIG. **30**;
FIG. **32**A is a perspective view of an example handle;
FIG. **32**B is a end view of the example handle of FIG. **32**A;
FIG. **32**C is a top view of the example handle of FIG. **32**A;
FIG. **32**D is a side view of the example handle of FIG. **32**A;
FIG. **32**E is a bottom view of the example handle of FIG. **32**A; and
FIG. **33** is a perspective view of an example apparatus according to another embodiment;
FIG. **34** is an exploded perspective view of the example apparatus of FIG. **33**;
FIG. **35** is a perspective view of an upper clamp member;
FIG. **36**A is a side view of an example upper clamp member;
FIG. **36**B is a front view of an example upper clamp member;
FIG. **36**C is an end view of an example upper clamp member;
FIG. **36**D is a partial section view of the example upper clamp member of FIG. **36**;
FIG. **37**A is an exploded perspective view of an example knob assembly;
FIG. **37**B is a perspective view of an example knob assembly;
FIG. **38**A is a perspective view of an example draw bar;
FIG. **38**B is a bottom view of an example draw bar;
FIG. **38**C is a side view of an example draw bar; and
FIG. **38**D is a partial section view of the example draw bar if FIG. **38**.

Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

Certain terminology is used in the following description for convenience only and is not limiting. The words "right", "left", "lower", and "upper" designate direction in the drawings to which reference is made. The words "inner", "outer" refer to directions toward and away from, respectively, the geometric center of the described feature or device. The words "distal" and "proximal" refer to directions taken in context of the item described and, with regard to the apparatus herein described, are typically based on the perspective of the performer using such apparatus. The terminology includes the above-listed words, derivatives thereof, and words of similar import.

Certain examples of the invention will now be described with reference to the drawings. In general, such examples relate to the use of a drum practice pad that can be removably attached to a percussion instrument. Example percussion instruments include marching multi-tenor drums, marching bass drums, marching snare drums, concert snare drums, and any other stationary or portable membranophone (instruments producing sound via vibration of stretched membrane) and/or idiophone (instruments producing sound via vibration of the instrument without the use of strings or membrane) known in the art.

FIG. **1** provides a perspective view of an example apparatus **100**. FIG. **2** provides an exploded perspective view of the example apparatus **100**. The apparatus **100** can include a mount assembly **102** and a paddle **104**.

The location of the practice pad/apparatus **100** can be adjusted to simulate the playing surface of an actual drum. The mount assembly **102** can be used to fix the apparatus **100** to the percussion instrument **200** (not shown in FIG. **1**). As will be explained in more detail below, the paddle **104** can be coupled to the mount assembly **102** such that the paddle **104** is movable between a playing position over the head **202** of the percussion instrument **200**, as illustrated in FIG. **17-20**, and in a non-playing position away from the head **202** of the percussion instrument **200**, as illustrated in FIG. **21-22**.

The mount assembly **102** can include an upper clamp member **106**, a lower clamp member **108**, and a draw bar **110** coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper clamp member **106** and the lower clamp member **108** can be adjusted. FIG. **3** provides a perspective view of an example upper clamp member **106**. FIGS. **4**A-**4**C provide side and top views of the upper clamp member **106**. As illustrated, the upper clamp member **106** can include an upper engagement portion **112** for engaging the percussion instrument **200**. The upper engagement portion **112** can include a groove or recess sized and configured to engage a corresponding portion **204** of the percussion instrument **200**. For example, the upper engagement portion **112** can include a recess sized and configured to engage an upper rim portion of the percussion instrument **200**. The upper clamp member **106** can include a paddle pin bore **114** sized and configured to engage a corresponding paddle pin **116**. The upper clamp member **106** can also include a spring pin bore **118** sized and configured to engage a corresponding spring pin **120**. The upper clamp member **106** can also include a handle bore **122** sized and configured to engage a corresponding handle pin **124** and/or rotation portion **126** of the handle **128**.

FIGS. **5**A and **5**B provides a perspective views of an example lower clamp member **108**. FIGS. **6**A-D provide side, front and back views of the lower clamp member **108**. The lower clamp member **108** can include a lower engagement portion **130** for engaging the percussion instrument **200**. The lower engagement portion **130** can include a groove or recess sized and configured to engage a corresponding portion **206** of the percussion instrument **200**. For example, the lower engagement portion **130** can include a recess sized and configured to engage a lower rim portion of the percussion instrument **200**. The lower clamp member **108** can include a locking member bore **132** sized and configured to engage a corresponding locking member **134**.

FIG. **7**A provides a perspective view of an example draw bar **110**. FIGS. **7**B-C provide front and side views of the draw bar **110**. As outlined above, the draw bar **110** can be movably coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper clamp member **106** and the lower clamp member **108** can be adjusted along the draw bar **110**. For example, as illustrated in FIGS. **3-6**, the upper clamp member **106** and the lower clamp member **108** can include a recess **136** for receiving the draw bar **110**. The draw bar **110** and the recess **136** can be sized and configured such that the draw bar **110** moves freely within the recess **136**. The location of the draw bar **110** can be fixed with respect to the mount assembly **102** using a locking member **134**. For example, contact between the locking member **134** and the draw bar **110** can be used to prevent movement between the mount assembly **102** and the draw bar **110**. In another example (not shown), the draw bar **110** can include a

locking member bore sized and configured to engage a corresponding locking member **134**. The draw bar **110** can also include a handle bore **140** sized and configured to engage a corresponding handle pin **124**. The handle bore **140** can include an elongated slot extending in a direction perpendicular to the longitudinal axis of the draw bar **110**. The elongated slot-shaped handle bore **140** permits the handle pin **124** to rotate while in a locked position. The handle pin **124** mates the handle **128** and upper clamp member **106** with the draw bar **110** via the handle bore **122** and handle bore **140**. For example, the handle pin **124** can extend from the handle **128** and into and/or through the upper clamp member **106** (at handle bore **122**) and the draw bar **110** (at handle bore **140**). In an example apparatus **100**, the handle pin **124** can include a shoulder screw.

A locking member **134** can be used to fix the position of the draw bar **110** with respect to at least one of the upper clamp member **106** and the lower clamp member **108**. FIG. **8**A provides an exploded view of an example locking member **134**. FIG. **8**B provides a perspective view of the locking member **134**. The locking member **134** can include an elongated member **144** sized and configured to engage the locking member bore **132** of the lower clamp member **108**.

In an example apparatus **100**, the elongated member **144** of the locking member **134** extends through the lower clamp member **108** and contacts the draw bar **110**. Pressure and/or contact between the elongated member **144** and the draw bar **110** fix the location of the lower clamp member **108** with respect to the mount assembly **102**/draw bar **110**. In another example (not shown), the elongated member **144** of the locking member **134** is sized and configured to extend through the lower clamp member **108**, engage a locking member bore of the draw bar **110**, and a locking nut **146** opposite the lower clamp member **108**. As illustrated in FIG. **2**, the locking nut **146** can be sized and configured to engage the elongated member **144**, and fix the longitudinal position of the elongated member **144** with respect to the draw bar **110** and the upper and/or lower clamp members **106**, **108**. An example locking nut **146** can include a square locking nut. In a further example (not shown), the elongated member **144** of the locking member **134** is sized and configured to engage a locking member bore of the upper clamp member **106**.

The locking member **134** can also include a grip portion **148** coupled to an end of the elongated member **144**. The grip portion **148** can be used to manipulate the axial and/or rotational orientation/direction of the elongated member **144**. For example, the user can rotate the grip portion **148** and thereby cause a corresponding rotation of the elongated member **144**. In an example apparatus **100**, the elongated member **144** comprises a socket set screw. In an example apparatus **100**, the grip portion **148** comprises a thumb screw.

As outlined above, the apparatus **100** includes a mount assembly **102** and a paddle **104**. The paddle **104** can include a playing surface **142** and a paddle handle **150**. FIG. **9**A provides a perspective view of an example paddle **104**. FIG. **9**B provides an exploded view of an example paddle **104**. The paddle **104** can be sized and configured to cover the entire playing surface and/or head **202** of the percussion instrument **200**. In another example, the noise-dampening pad **152** can be sized and configured to cover a portion of the playing surface and/or head **202** of the percussion instrument **200**. A noise-dampening pad **152** can be affixed to at least a portion of the playing surface **142**. FIGS. **10**A-C provide top and side views of an example paddle **104**. As illustrated in the figures, the playing surface **142** can define a circular shape. The paddle handle **150** can extend from the playing surface **142**. The paddle handle **150** can include a paddle pin bore **154** sized and configured to engage a corresponding paddle pin **116**. The paddle **104** can be pivotably coupled to the mount assembly **102** at the paddle pin **116**. For example, the paddle pin **116** can couple the paddle **104** to the upper clamp member **106**. An example paddle pin **116** can include a self-locking shoulder screw. The paddle handle **150** can also include a spring pin bore **156** sized and configured to engage a corresponding pin **158** coupled to the second end **160** of the spring **162**.

FIGS. **11**A and B provide a top and side view of an example noise-dampening pad **152**. The noise-dampening pad **152** can be affixed to at least a portion of the playing surface **142**. The noise-dampening pad **152** can be constructed from a material designed to dampening the sound of the user striking the paddle **104**. For example, the noise-dampening pad **152** can be constructed of rubber or any other appropriate noise-dampening material known in the art. An example noise-dampening pad **152** can be sized and configured to cover the entire top surface of the playing surface **142**. In another example, the noise-dampening pad **152** can be sized and configured to cover a portion of the top surface of the playing surface **142**. In a further example (not shown), the noise-dampening pad **152** can be constructed similar to a sleeve and can cover at least a portion of the top and bottom surfaces of the playing surface **142**. As illustrated in FIGS. **11**A-B, the noise-dampening pad **152** can define a circular shape or any other shape corresponding to the playing surface **142**.

FIG. **12**A provides a perspective view of another example paddle **104**. FIG. **12**B provides an exploded view of the other example paddle **104**. FIGS. **13**A-C provide top and side views of the example paddle **104**. As illustrated in the figures, the playing surface **142** can define an elongated shape with rounded corners. It is further contemplated that the playing surface **142** can define a square, rectangular, oval or any other regular or irregular shape. Likewise, the noise-dampening pad **152** (as illustrated in FIGS. **12**B and **14**A-B) can define an elongated shape corresponding to the playing surface **142** of the paddle **104**. It is further contemplated, that the noise-dampening pad **152** can define a circular, square, rectangular, oval or any other regular or irregular shape.

In an example apparatus **100**, the paddle **104** is spring-loaded to the mount assembly **102**. The apparatus **100** can include a spring **162** having a first end **164** coupled to the mount assembly **102** and a second end **160** coupled to the paddle **104**. For example, the first end **164** can be coupled to a pin **120** associated with the mount assembly **102** (e.g., the upper clamp member **106**) and the second end **160** can be coupled to a pin **158** associated with the paddle **104**. In an example, the pin **120** and pin **158** can comprise a socket head cap screw. The spring **162** can also include a spring guard **166** sized and configured to enclose the circumference of the spring **162**. For example, the spring guard **166** can comprise a heat shrink material. The paddle **104** can be spring-loaded to default to a playing position. In another example, the paddle **104** can be spring-loaded to default to a non-playing position.

As outlined above, the paddle **104** can be coupled to the mount assembly **102** such that the paddle **104** is movable between a playing position and in a non-playing position. A handle **128** can be used to assist in fixing the position of the paddle **104** with respect to the mount assembly **102**. FIGS. **15** A-B provide perspective views of an example handle **128**. FIGS. **16** A-D provide top, bottom, and side views of the example handle **128**. The handle can include a handle bore **168** sized and configured to engage a corresponding handle pin **124**. The handle **128** can be rotatably coupled to the mount assembly **102** via the handle pin **124**. The handle **128** can also include a grip portion **170**. The grip portion **170** can be used to manipulate the rotational orientation of the handle **128**. For

example, the user can rotate the grip portion **170** and thereby cause a corresponding rotation of the handle **128** between a locked and unlocked position.

FIGS. **17-22** provide perspective views of an example apparatus **100** and a percussion instrument **200**. As illustrated in FIGS. **17-20**, the paddle **104** located in a playing position such that the playing surface **142** is located over the head **202** of the percussion instrument **200**. FIGS. **21-22** provide the paddle **104** in a non-playing position such that the playing surface **142** is located away from the head **202** of the percussion instrument **200**.

As outlined above, the handle **128** can be coupled to the mount assembly **102** and movable between a locked and unlocked position for fixing a position of the paddle **104** between the playing and non-playing positions, respectively. FIGS. **17-18** illustrate the handle **128** in a locked position. The handle **128** can include a locking surface **172** sized and configured to engage, impact, or otherwise contact a corresponding locking surface **174** of the paddle **104**. In the locked position, contact between the corresponding locking surfaces **172**, **174** prevents rotation/movement of the paddle **104** with respect to the mount assembly **102**. For example, when the handle **128** is in the locked position, the locking surfaces **172**, **174** engage and prevent rotation of the paddle **104** from a playing position to a non-playing position. FIGS. **19-22** illustrate the handle **128** in the unlocked position. In the unlocked position, the handle **128** does not inhibit motion of the paddle **104** and the paddle **104** is free to rotate around the paddle pin **116**.

The apparatus **100** can be coupled to the percussion instrument **200** as follows. As illustrated in FIGS. **17-18**, the apparatus **100** is aligned with the percussion instrument **200** at the desired location. The upper clamp member **106** and the lower clamp member **108** can be aligned such that the upper engagement portion **112** and the lower engagement portion **130** align with a corresponding engagement portion of the percussion instrument **200**. For example, the upper engagement portion **112** and the lower engagement portion **130** align with a corresponding edge/surface **204**, **206** of the rim of the percussion instrument **200**. During alignment, the paddle **104** can be in a playing position or a non-playing position. Once the apparatus **100** is aligned with the percussion instrument **200**, the upper clamp member **106** and the lower clamp member **108** can be adjusted to engage the corresponding edge/surface **204**, **206** of the rim of the percussion instrument **200**. FIGS. **19-22** illustrate the mount assembly **102** coupled to the percussion instrument **200**. The lower clamp member **108** can be adjusted along the draw bar **110** to provide sufficient contact/engagement between the upper clamp member **106** and the lower clamp member **108** and the percussion instrument **200**. Once the mount assembly **102** is sufficiently engaged with the percussion instrument **200**, the locking member **134** is adjusted to fix the position of the lower clamp member **108** with respect to the draw bar **110**, thereby fixing the mount assembly **102** to the percussion instrument **200**. To remove the apparatus **100**, the locking member **134** may be released and the upper clamp member **106** and lower clamp member **108** separated along the draw bar **110**. Once the upper engagement portion **112** and/or lower engagement portion **130** are released from the percussion instrument **200**, the apparatus **100** maybe removed from the percussion instrument **200**.

FIG. **23** provides a perspective view of an example apparatus **2300** according to another embodiment. The example apparatus **2300** illustrated in FIG. **23** includes some features similar to those included in the embodiment of FIG. **1**. Where applicable, like reference numbers will be used to designate like features. FIG. **24** provides an exploded view of the example apparatus **2300** of FIG. **23**.

The apparatus **2300** can include a mount assembly **102** and a paddle **104**. The paddle **104** can be coupled to the mount assembly **102** such that the paddle **104** is movable between a playing position over the head **202** of the percussion instrument **200**, illustrated in FIG. **17-20**, and in a non-playing position away from the head **202** of the percussion instrument **200**, illustrated in FIG. **21-22**.

The mount assembly **102** can include an upper clamp member **106**, a lower clamp member **108**, and a draw bar **110** coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper clamp member **106** and the lower clamp member **108** can be adjusted. FIG. **25** provides a perspective view of the upper clamp member **106** of FIG. **23**. FIGS. **26**A-**26**C provide side and top views of the upper clamp member **106**. As illustrated, the upper clamp member **106** can include an upper engagement portion **112** for engaging the percussion instrument **200**. The upper engagement portion **112** can include a groove or recess sized and configured to engage a corresponding portion **204** of the percussion instrument **200**. For example, the upper engagement portion **112** can include a recess sized and configured to engage an upper rim portion of the percussion instrument **200**. The upper clamp member **106** can include a paddle pin bore **114** sized and configured to engage a corresponding paddle pin **116**. The upper clamp member **106** can also include a handle bore **122** sized and configured to engage a corresponding handle pin **124** and/or rotation portion **126** of the handle **128**. The upper clamp member **106** can also include a knob bore **176** sized and configured to engage a corresponding knob **178**/knob pin **180**. The upper clamp member **106** can also include a roll pin bore **182** sized and configured to engage a corresponding roll pin **184**. The roll pin **184**, when engaged, can limit rotation of the handle **128**. For example, the roll pin **184** can prevent the handle **128** from rotating to a complete vertical position. The upper clamp member **106** can also include at least one recessed portion **186** on the outer surface of the upper clamp member **106**.

The example apparatus **2300** can include a lower clamp member **108** similar to that illustrated in FIGS. **5**A, **5**B and **6**A-D.

FIG. **27**A provides a perspective view of an example draw bar **110**. FIGS. **27**B-D provide bottom, side and end views of the draw bar **110**. As outlined above, the draw bar **110** can be movably coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper clamp member **106** and the lower clamp member **108** can be adjusted along the draw bar **110**. For example, as illustrated in FIGS. **5**, **6**, **25** and **26** the upper clamp member **106** and the lower clamp member **108** can include a recess **136** for receiving the draw bar **110**. The draw bar **110** and the recess **136** can be sized and configured such that the draw bar **110** moves freely within the recess **136**. As outlined above, the location of the draw bar **110** can be fixed with respect to the mount assembly **102** using a locking member **134**. The draw bar **110** can also include a handle bore **140**/slot sized and configured to engage a corresponding handle pin **124**. As outlined above, the handle pin **124** can be used to mate the handle **128** and draw bar **110** with the upper clamp member **106**. The draw bar **110** can also include a recess **188**. The recess **188** can be sized and configured to engage a corresponding pin. When engaged the pin can provide stabilization to the draw bar **110**. An engaged pin can also provide a preset for the handle pin **124**. An example recess **188** can include a circular or semi-circular shaped recessed into the bottom surface of the draw bar **110**.

As outlined above, a locking member **134**, similar to the locking member **134** illustrated in FIGS. **8**A and **8**B, can be used to fix the position of the draw bar **110** with respect to at least one of the upper clamp member **106** and the lower clamp member **108**.

As provided above, the apparatus **2300** can include a mount assembly **102** and a paddle **104**. The paddle **104** can include a playing surface **142** and a paddle handle **150**. FIG. **28**A provides a perspective view of an example paddle **104**. FIG. **28**B provides an exploded view of the example paddle **104**. A noise-dampening pad **152** can be affixed to at least a portion of the playing surface **142**. FIGS. **29**A-D provide top, side and end views of an example paddle **104**. The paddle **104** can include a round playing surface **142** and an elongated handle **150** extending from the playing surface **142**. Likewise, the noise-dampening pad **152** can define a round shape corresponding to the playing surface **142** of the paddle **104**. The paddle handle **150** can include a paddle pin bore **154** sized and configured to engage a corresponding paddle pin **116**. The paddle **104** can be pivotably coupled to the mount assembly **102** (at upper clamp member **106**) at the paddle pin **116**. The paddle **104** handle **150** can include a curved end surface **190** size and configured to accommodate the paddle pin **116**. The paddle handle **150** can also include a knob bore **192** sized and configured to engage a corresponding knob **178**/knob pin **180**.

FIG. **30**A provides a perspective view of another example paddle **104**. FIG. **30**B provides an exploded view of the other example paddle **104**. FIGS. **31**A-C provide end, top and side views of the example paddle **104**. As illustrated in the figures, the playing surface **142** can define an elongated shape with rounded corners. Likewise, the noise-dampening pad **152** can define an elongated shape corresponding to the playing surface **142** of the paddle **104**.

In an example apparatus **2300**, the paddle **104** pivotably coupled to the mount assembly (e.g., upper clamp member **106**) via the paddle pin **116**. The location of the paddle **104** can be fixed with respect to the upper clamp member **106** using knob **178**. When the knob **178** is engaged, the knob pin **180** can extend through the paddle handle **150** and through and/or into the upper clamp member **106**. Thus engaged, the knob **178** fixes the location of the paddle **104** in a playing position over the head **202** of the percussion instrument **200**. The knob **178** can be removed/disengaged, and the paddle **104** can rotate between a playing position and a non-playing position. As illustrated in FIGS. **23** and **24**, the knob **178** includes a knob pin **180**. The knob pin **180** can include an elongated shaft sized and configured to engage knob bores **176**, **192**. In another example, the knob pin **180** can include a retractable spring plunger. The grip portion/head of the knob **178** is coupled to the knob pin **180** and can include a threaded ball-shaped head **178**A or a push-pull-lift phenolic knob **178**B. FIG. **23** illustrated both a threaded ball knob **178**A and a phenolic knob **178**B. It is contemplated that the threaded ball knob **178**A and phenolic knob **178**B can be used as interchangeable options.

A handle **128** can be used to assist in fixing the position of the paddle **104** with respect to the mount assembly **102**. FIG. **32**A provides a perspective view of an example handle **128**. FIGS. **32** B-E provide end, top, side and bottom views of the example handle **128**. The handle can include a handle bore **168** sized and configured to engage a corresponding handle pin **124**. The handle **128** can be rotatably coupled to the mount assembly **102** via the handle pin **124**. The handle **128** can also include a grip portion **170**. The grip portion **170** can be used to manipulate the rotational orientation of the handle **128**. For example, the user can rotate the grip portion **170** and thereby cause a corresponding rotation of the handle **128** between a locked and unlocked position. The handle **128** can also include a rotation portion **126** sized and configured to engage the handle bore **122** of the upper clamp member **106**. The rotation portion **126** can provide a rotation surface for the handle **128** with respect to the handle bore **1255**/upper clamp member **106**.

As outlined above, the handle **128** can be coupled to the mount assembly **102** and movable between a locked and unlocked position for fixing a position of the paddle **104** between the playing and non-playing positions, respectively. The handle **128** can include a locking surface **172** sized and configured to engage, impact, or otherwise contact a corresponding locking surface **174** of the paddle **104**. In the locked position, contact between the corresponding locking surfaces **172**, **174** prevents rotation/movement of the paddle **104** with respect to the mount assembly **102**. The handle **128** can also include a draw bar pin bore **194** sized and configured to accommodate a draw bar pin **196**. The draw bar pin **196** can be used to fix the location of the handle **128** with respect to the draw bar **110**. An example draw bar pin **196** is a spring plunger (e.g., a ball nose spring plunger). The draw bar pin **196** can use used to lock the position of the handle **128**, thereby fixing the paddle **104** in a playing/non-playing position.

Similar to the assembly illustrated in FIGS. **17-22**, the apparatus **2300** can be coupled to the percussion instrument **200** and manipulated from a playing position to a non-playing position similar to the apparatus **100**. The apparatus **2300** can be aligned with the percussion instrument **200** at the desired location and the upper clamp member **106** and the lower clamp member **108** positioned such that the upper engagement portion **112** and the lower engagement portion **130** align the percussion instrument **200** (e.g., edge/surface **204**, **206** of the rim of the percussion instrument **200**). Once the apparatus **2300** is aligned with the percussion instrument **200**, the upper clamp member **106** and the lower clamp member **108** can be adjusted along the draw bar **110** to engage the edge/surface **204**, **206** of the rim of the percussion instrument **200**. Once the mount assembly **102** is in the desired position, the locking member **134** is adjusted to fix the position of the lower clamp member **108** with respect to the draw bar **110**, thereby fixing the mount assembly **102** to the percussion instrument **200**. The paddle is moved between a playing position and a non-playing position by adjustment of the knob **178** as outlined above. To remove the apparatus **100**, the locking member **134** may be released and the upper clamp member **106** and lower clamp member **108** separated along the draw bar **110** and removed from the percussion instrument **200**.

FIG. **33** provides a perspective view of an example apparatus **3300** according to another embodiment. The example apparatus **3300** illustrated in FIG. **33** includes features similar to those included in the embodiment of FIGS. **1** and **23**. Where applicable, like reference numbers will be used to designate like features. FIG. **34** provides an exploded view of the example apparatus **3300** of FIG. **33**.

The apparatus **3300** can include a mount assembly **102** and a paddle **104**. The paddle **104** can be coupled to the mount assembly **102** such that the paddle **104** is movable between a playing position over the head **202** of the percussion instrument **200**, illustrated in FIG. **17-20**, and in a non-playing position away from the head **202** of the percussion instrument **200**, illustrated in FIG. **21-22**.

The mount assembly **102** can include an upper clamp member **106**, a lower clamp member **108**, and a draw bar **110** coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper

clamp member **106** and the lower clamp member **108** can be adjusted. FIG. **35** provides a perspective view of the upper clamp member **106** of FIG. **33**. FIGS. **36**A-**36**D provide side, top and section views of the upper clamp member **106**. As illustrated, the upper clamp member **106** can include an upper engagement portion **112** for engaging the percussion instrument **200**. The upper clamp member **106** can include a paddle pin bore **114** sized and configured to engage a corresponding paddle pin **116**. The upper clamp member **106** can also include a handle bore **122** sized and configured to engage a corresponding handle pin **124** and/or rotation portion **126** of the handle **128**. The upper clamp member **106** can also include a knob bore **176** sized and configured to engage a corresponding knob assembly **198**. The knob bore **176** can extend through the upper clamp member **106**. The knob bore **176** can extend into the body of the upper clamp member **106** a predetermined depth. The knob bore **176** can be sized and configured to engage the knob assembly **198** to fix the position/orientation of the paddle **106** with respect to the upper clamp member **106**. FIG. **36**D provides a section (A-A) view of an example knob bore **176** extending into the body of the upper clamp member **106** a certain depth. As illustrated in FIG. **36**D, the knob bore **176** can include a "drill point" shaped recess. In another example, not shown, the knob bore **176** can define a recess having a round, square, or any other regular or irregular geometry. The upper clamp member **106** can also include a roll pin bore **182** sized and configured to engage a corresponding roll pin **184**.

FIG. **37**A provides an exploded view of an example knob assembly **198**. FIG. **37**B provides a perspective view of the example knob assembly **198**. The knob assembly **198** can include an elongated shaft coupled to a head portion. The elongated shaft can include a threaded shaft, for example, a set screw. The knob assembly **198** can, for example, comprise a thumb screw. The distal end of the elongated shaft can include a coupling surface for engaging a corresponding surface of the knob bore **176**. For example the coupling surface of the elongated shaft can include a rounded or oval-shaped tip. The coupling surface of the elongated shaft can define a round, square, or any other regular or irregular geometry corresponding and/or complimenting the knob bore **176**.

The example apparatus **3300** can include a lower clamp member **108** similar to that illustrated in FIGS. **5**A, **5**B and **6**A-D.

FIG. **38**A provides a perspective view of an example draw bar **110**. FIGS. **38**B-**38**D provide bottom, side and end views of the draw bar **110**. As outlined above, the draw bar **110** can be movably coupled to the upper clamp member **106** and the lower clamp member **108** such that the spacing/distance between the upper clamp member **106** and the lower clamp member **108** can be adjusted along the draw bar **110**. As outlined above, the location of the draw bar **110** can be fixed with respect to the mount assembly **102** using a locking member **134**. The draw bar **110** can also include a handle bore **140**/slot sized and configured to engage a corresponding handle pin **124**. The draw bar **110** can also include a recess **188**. An example recess **188** can include a circular or semi-circular shaped groove recessed into the bottom surface of the draw bar **110**. FIG. **38**D provides a section (A-A) view of the recess **188** extending into the body of the draw bar **110** a certain depth. As illustrated in FIG. **38**D, the recess **188** can define a round or semi-circular shape. In another example, not shown, the recess **188** can define a "drill point", square, or any other regular or irregular geometry. As illustrated in FIG. **38**B, the recess **188** can be offset from the centerline of the draw bar **110** a predetermined distance and angle.

As outlined above, a locking member **134**, similar to the locking member **134** illustrated in FIGS. **8**A and **8**B, can be used to fix the position of the draw bar **110** with respect to at least one of the upper clamp member **106** and the lower clamp member **108**.

As outlined above, the apparatus **3300** can include a paddle **104**, as illustrated in FIGS. **9-14** and **28-31**, that can be manipulated between a playing position and a non-playing position similar to the apparatus **100** and **2300**. Once the apparatus **3300** is aligned with the percussion instrument **200**, the upper clamp member **106** and the lower clamp member **108** can be adjusted along the draw bar **110** to engage the edge/surface **204**, **206** of the rim of the percussion instrument **200** and the locking member **134** adjusted to fix the lower clamp member **108** with respect to the draw bar **110**, fixing the mount assembly **102** to the percussion instrument **200**. The paddle is moved between a playing position and a non-playing position by adjustment of the knob assembly **198**. To remove the apparatus **100**, the locking member **134** may be released and the upper clamp member **106** and lower clamp member **108** separated along the draw bar **110** and removed from the percussion instrument **200**. While the foregoing description and drawings represent the preferred embodiment of the present invention, it will be understood that various additions, modifications, combinations and/or substitutions may be made therein without departing from the spirit and scope of the present invention as defined in the accompanying claims. In particular, it will be clear to those skilled in the art that the present invention may be embodied in other specific forms, structures, arrangements, proportions, and with other elements, materials, and components, without departing from the spirit or essential characteristics thereof. One skilled in the art will appreciate that the invention may be used with many modifications of structure, arrangement, proportions, materials, and components and otherwise, used in the practice of the invention, which are particularly adapted to specific environments and operative requirements without departing from the principles of the present invention. In addition, features described herein may be used singularly or in combination with other features. The presently disclosed embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims and not limited to the foregoing description.

It will be appreciated by those skilled in the art that changes could be made to the embodiments described above without departing from the broad inventive concept thereof. For example, the apparatus **100** may be modified to adapt to various percussion instruments including, for example, a tenor drum, a bass drum, and a snare drum. It is understood, therefore, that this invention is not limited to the particular embodiments disclosed, but it is intended to cover modifications within the spirit and scope of the present invention, as defined by the following claims.

What is claimed is:

1. An apparatus providing a removable playing surface to a percussion instrument, the apparatus comprising:

a mount assembly for fixing the apparatus to the percussion instrument;

a paddle having a playing surface, the paddle coupled to the mount assembly such that the paddle is movable between a playing position over a head of the percussion instrument and in a non-playing position away from the head of the percussion instrument, and

a handle coupled to the mount assembly movable between a locked and unlocked position for fixing a position of the paddle between the playing and non-playing positions, respectively.

2. The apparatus of claim **1**, wherein the paddle further includes a noise-dampening pad affixed to at least a portion of the playing surface.

3. The apparatus of claim **2**, wherein the noise-dampening pad is composed of rubber.

4. The apparatus of claim **1**, wherein the paddle is pivotably coupled to the mount assembly at a paddle pin.

5. The apparatus of claim **1**, further including a spring having a first end coupled to the paddle and a second end coupled to the mount assembly.

6. The apparatus of claim **5**, wherein the paddle is spring loaded to default to a playing position.

7. The apparatus of claim **1**, wherein the handle includes a locking surface sized and configured to impact a corresponding locking surface of the paddle when the handle is in a locked position.

8. The apparatus of claim **1**, wherein the handle includes a grip portion.

9. The apparatus of claim **1**, wherein the handle is rotatably coupled to the mount assembly at a handle pin.

10. The apparatus of claim **9**, wherein the mount assembly includes a handle bore sized and configured to receive the handle pin.

11. The apparatus of claim **10**, wherein the handle bore includes an elongated slot extending in a direction parallel to a playing surface of the percussion instrument.

12. The apparatus of claim **1**, wherein the mount assembly further includes:

an upper clamp member having an upper engagement portion for engaging the percussion instrument;

a lower clamp member having a lower engagement portion for engaging the percussion instrument; and

a draw bar moveably coupled to the upper clamp member and the lower clamp member such that the space between the upper clamp member and the lower clamp member can be adjusted.

13. The apparatus of claim **12**, wherein the upper and lower clamp member include a recess sized and configured to receive the draw bar.

14. The apparatus of claim **12**, further including a locking member for fixing the position of the draw bar with respect to at least one of the upper and lower clamp members.

15. The apparatus of claim **14**, wherein the locking member is an elongated member extending through the draw bar and at least one of the upper and lower clamp members.

16. The apparatus of claim **15**, further including a locking nut sized and configured to engage the elongated member and fix a position of the elongated member with respect to the draw bar and the at least one upper and lower clamp members.

17. The apparatus if claim **12**, wherein the upper engagement portion includes a recess sized and configured to engage an upper rim portion of the percussion instrument.

18. The apparatus of claim **12**, wherein the lower engagement portion includes a recess sized and configured to engage a lower rim portion of the percussion instrument.

19. The apparatus of claim **1**, wherein the percussion instrument includes at least one of tenor drum, a bass drum, and a snare drum.

20. An apparatus providing a removable playing surface to a percussion instrument, the apparatus comprising:

a mount assembly for fixing the apparatus to the percussion instrument, the mount assembly including:

an upper clamp member having an upper engagement portion for engaging the percussion instrument;

a lower clamp member having a lower engagement portion for engaging the percussion instrument; and

a draw bar moveably coupled to the upper clamp member and the lower clamp member such that the space between the upper clamp member and the lower clamp member can be adjusted; and

a paddle having a playing surface, the paddle coupled to the mount assembly such that the paddle is movable between a playing position over a head of the percussion instrument and in a non-playing position away from the head of the percussion instrument.

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